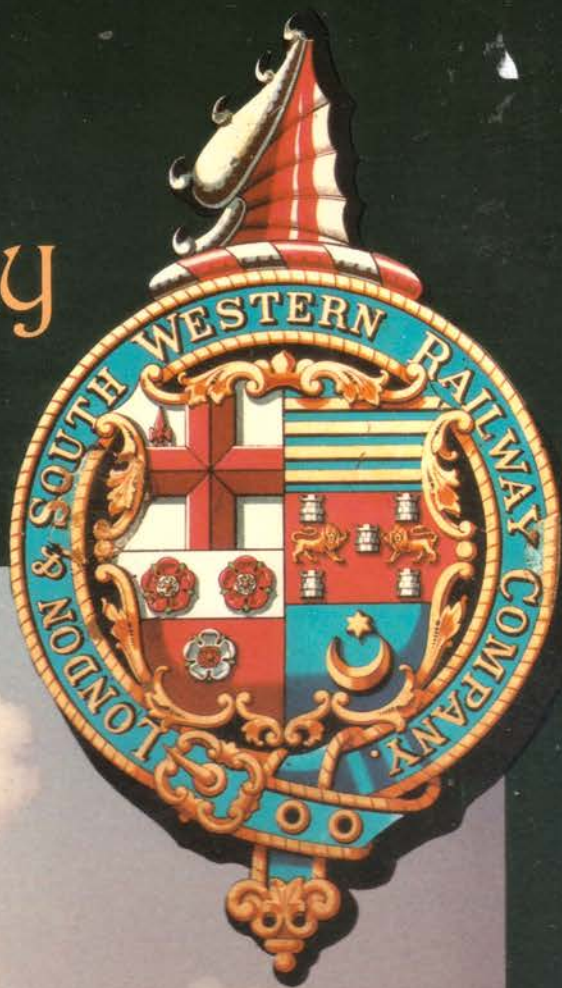


London & South Western Railway



150 years of the L & SWR

by Kevin Robertson



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Introduction & Acknowledgements

Front Cover: Rural South Western steam, unchanged for decades. 'M7', 30056 heads west from Brockenhurst for Ringwood
L. & SWR Crest *A. Molyneux collection by courtesy of W. Bishop*

Back Cover: Motive power for the L & S express service 150 years on. Artist's impression of the Class 442 e.m.u. built for working the Waterloo - Weymouth line.
British Rail/Network South East

In the annals of railway history, the London & South Western Railway has perhaps not been given the credit it richly deserves. In its experiments with the use of concrete as a building material, electrification and automatic train control, the L & SWR was a pioneer. The suburban lines which the South Western electrified have now become one of the most intensively used networks anywhere in the world.

It is now 150 years since the L & SWR opened its first line from London to Woking Common and it is perhaps an appropriate time to reflect on the Railway's achievements, to consider the work of the railway pioneers as they battled to overcome difficulties which nowadays would cause few problems, to look at the system as it developed, and to remember the days when the South Western was the premier railway south of the Thames.

Unfortunately space precludes me telling the whole story of the London & South Western and Southern Railways. Accordingly I have concentrated more on the period prior to 1923 and the results will, I hope, have a wide appeal.

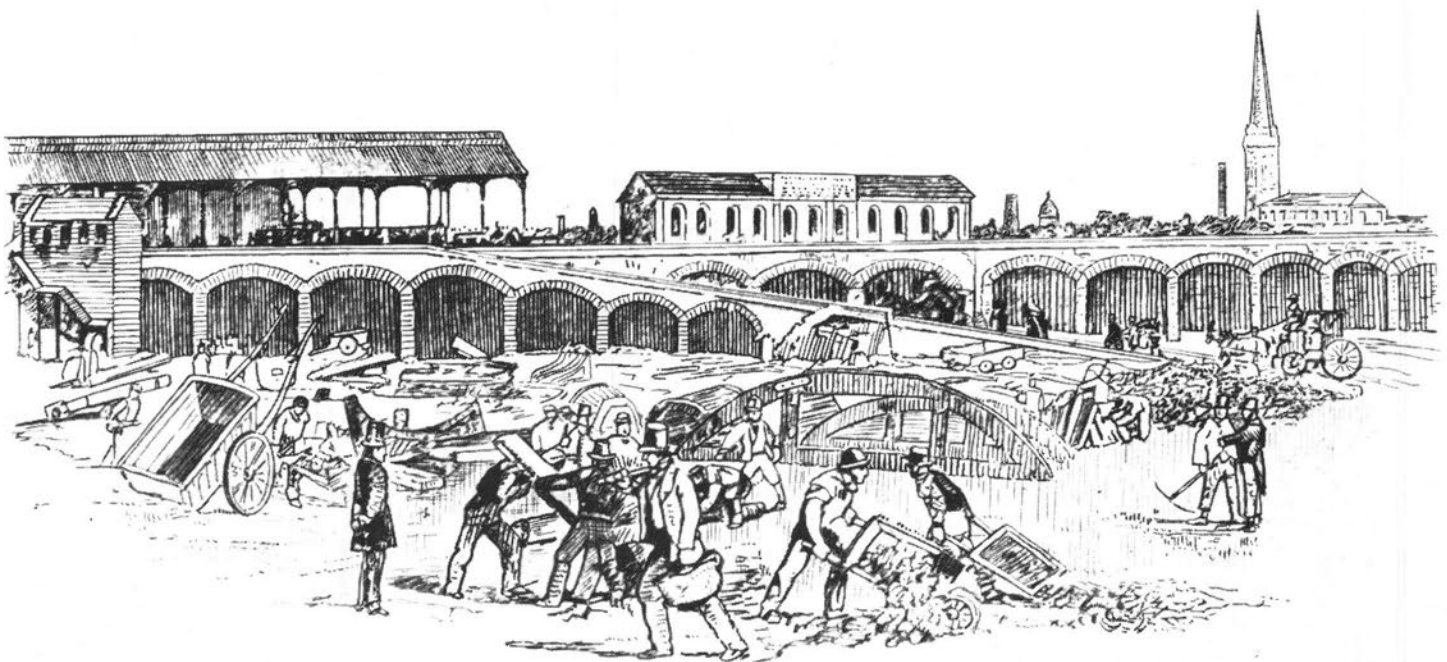
There is no pretence to this book being a definitive history. I am very conscious of the contribution a number of others have made to this work, and without whose help none of this would have been possible. I would like to make special mention of Hugh Abbinnett, Reg, Derek, Dennis and Dougie, British Rail, Mrs. Capon, Michael Dunn, John Fairman, David Postle, Jill Relf, Gary Smith, Roger Simmonds, Dennis Tillman and of course all the various photographers whose work has been reproduced. Not to be omitted is Lyn — my thanks as always.

Kevin Robertson

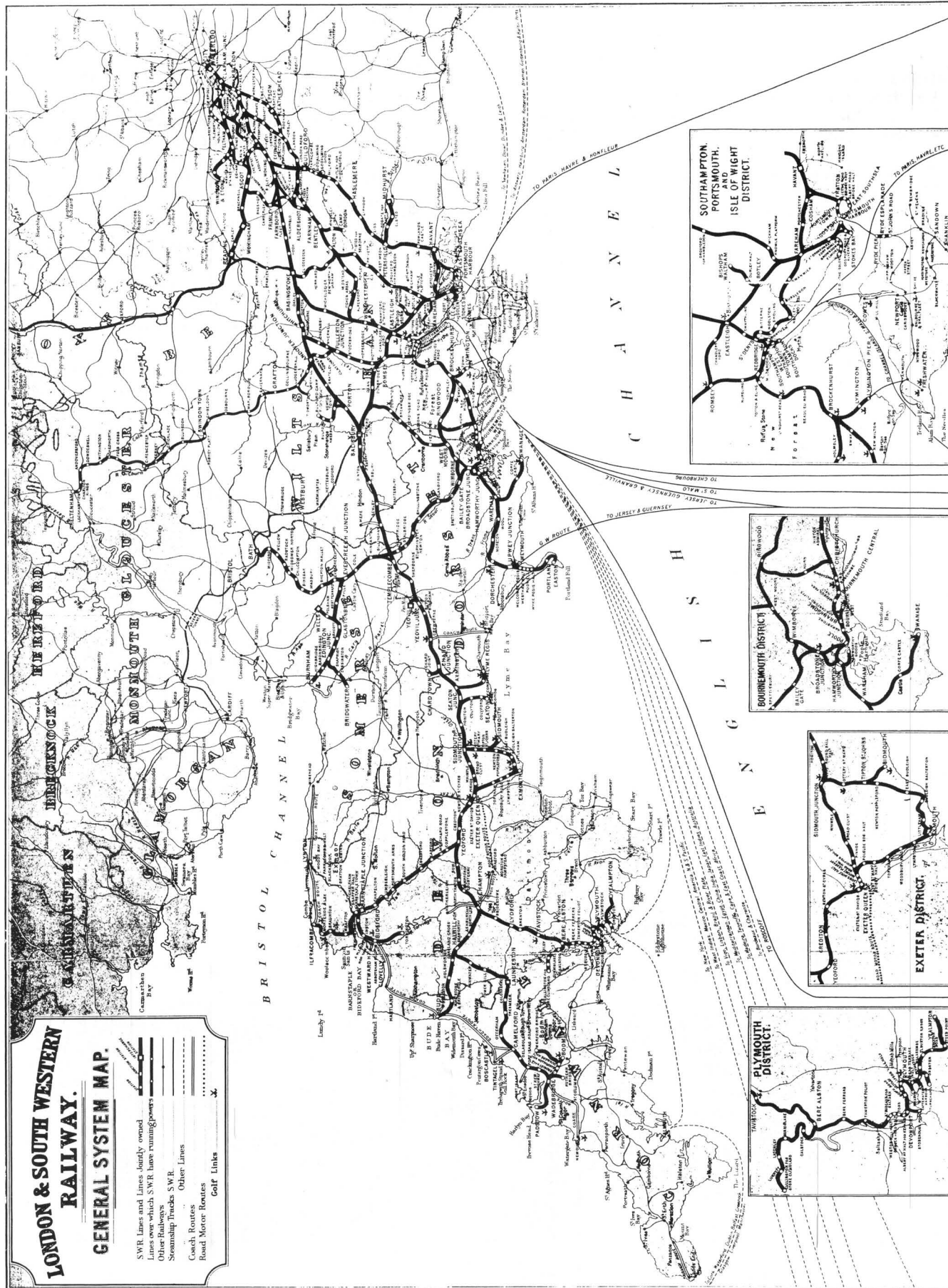
Eastleigh 1988

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WATERLOO STATION IN 1848.





The South Western System

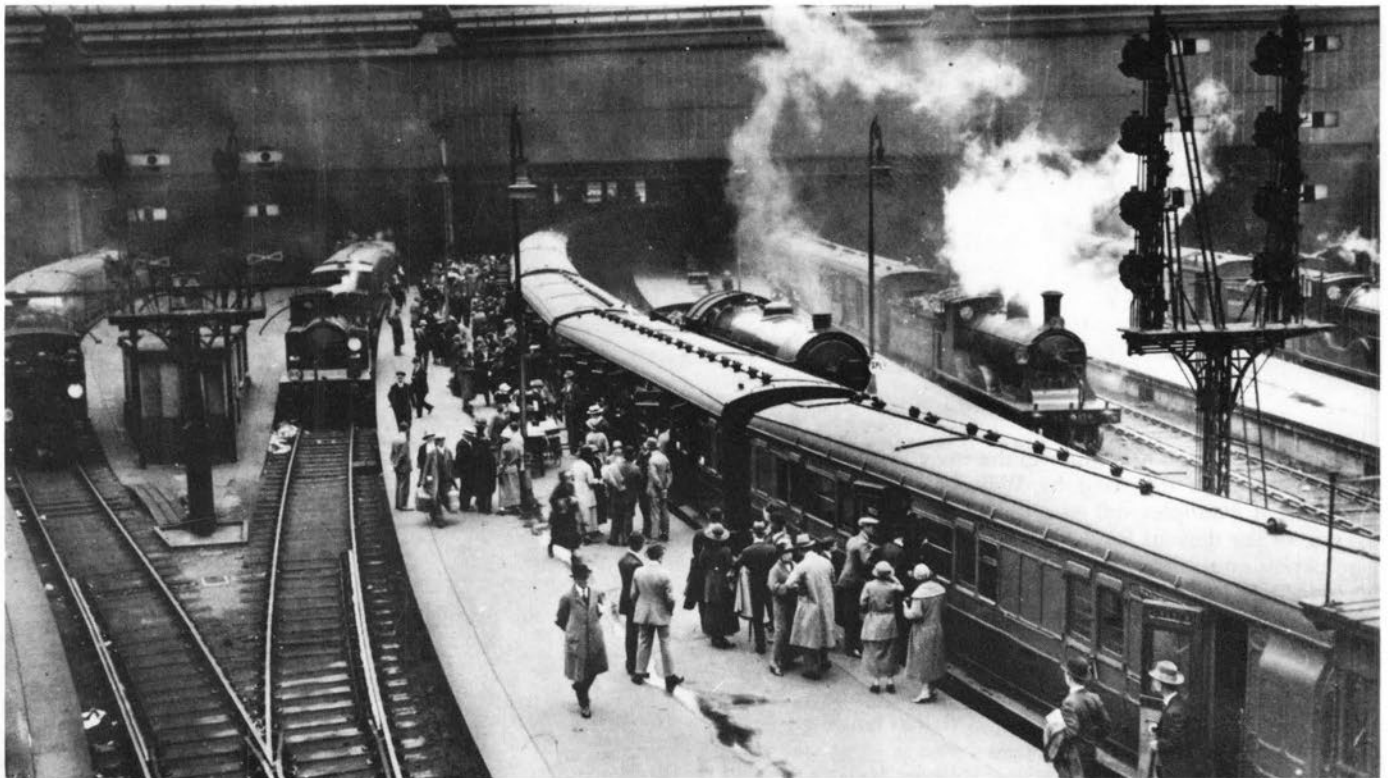
The south coast of England westwards from Sussex provides some of this country's most picturesque and unspoilt landscapes. The beautiful New Forest, the heathlands of Dorset and the quiet coves and rugged landscapes of Devon and Cornwall are without equal almost anywhere. Just a few years ago most visitors to these areas would travel by train, perhaps starting their journey at Waterloo Station, which on a summer Saturday presented a scene of seemingly endless queues assembled on the concourse.

The very first time these queues were witnessed was on Derby day at Nine Elms in May 1838, just a few days after the first section of the route was opened from Nine Elms to Woking Common. The episode was vividly reported by W. M. Acworth in 1889;

"The Company had advertised their intention of running eight trains to Kingston, and to their astonish-

ment early in the morning a crowd of 5000 persons assembled at Nine Elms. (At the time this was the London Terminus). Several trains were despatched, but the crowd increased faster than the trains could carry them off, and at length the mob broke the doors from their hinges and forcing their way into the station, took possession of a 'special' that had been chartered by a private party. In the end the police had to be sent for, and at twelve o'clock a notice in the booking office window announced that no more trains would be run that day. Since then the Company has had to learn to deal with larger crowds than 5000 without assistance, but no longer ago than the Boat-race day in 1887, it was taken by storm in a somewhat similar manner by a sudden influx of sightseers, who had found it impossible to book by the 'Underground' and came on a body to Waterloo (by then the London Terminus). But the worst that happened on this occasion was that a good many passengers travelled with-

An evocative view of Waterloo station just prior to the Grouping in 1923 with crowds assembled on the platform prior to the departure of a main line express. *Lens of Sutton*



THE COUNTY CHEESE MARKET FOR HAMPSHIRE.



Bishopstoke station (later Eastleigh) c. 1850 when it was still a green field site. Up to 1839 the station was known as Barton, but the name changed to Bishopstoke with the opening of the final section of the London & Southampton route between Basingstoke and Winchester. The view is looking towards Southampton and in the distance a train is coming off the Gosport branch. Just discernible on the extreme right is the line to Salisbury. The site of the cheese market was later taken over by marshalling yards, whilst today the scene has altered completely, with commercial and residential development having replaced the sidings. *Author's collection*

out paying their fare. Still, as the Company had succeeded that morning in despatching 15 specials, conveying 11,337 people in 56 minutes, it cannot fairly be said that the staff were paralysed."

Holiday makers and racegoers have since been joined by the Inter-City traveller and the regular London commuter, all of whom were no doubt far from the minds of the promoters who back in 1831 had suggested a railway linking London with the coast at Portsmouth. The primary reason for the proposals was to establish a link overland between London and the naval port. Whilst this was the first scheme involving a railway over the route, it was not the first proposal for improved transport in the same area, as some years earlier the great canal builder John Rennie had proposed a ship canal at the very high cost for that period of £7 million.

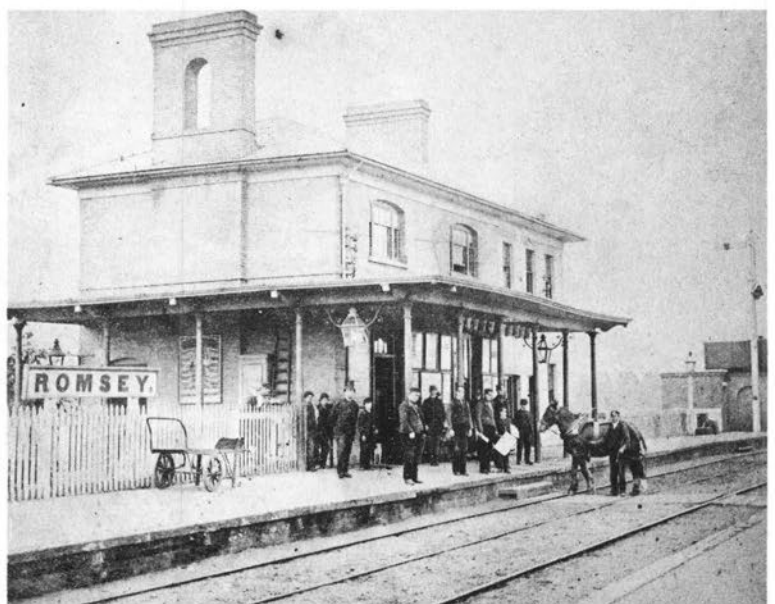
At the same time as the proposal for a line to Ports-

mouth, support was growing for constructing a railway between London and Southampton via Winchester. At first glance this may appear strange, especially as Southampton was then only a small fishing port. Indeed some few years later, the London and Southampton Railway was spoken of as the 'Parsons and Prawns' line, an oblique reference to the clergy of Winchester Cathedral and to the fish caught at Southampton. However, the promoters of the line could see that Portsmouth was a naval port with no opportunity for commercial expansion. On the other hand, Southampton was considered a more attractive proposition for development into a commercial port, and on 6th April 1831 the prospectus of the 'Southampton, London & Branch Railway & Dock Company' was issued with a projected capital of £1.5 million.

The references to "Dock Company" are clear and indeed, Southampton did develop into one of the na-

Many of the station buildings on the early L & S and L & SWR were designed by William Tite and a number of examples still survive. Romsey was built to one of the designs for a country station, although the extension to the right is a slightly later addition, probably dating from the late 1850s. Elsewhere the large stations at Southampton, Nine Elms and Gosport displayed a certain family resemblance, the last two including a collonade. The low height platforms were a feature of the early days, as was the railway horse which was used for shunting as well as hauling the station dray on local deliveries.

National Railway Museum.



tion's foremost commercial ports thanks to the railway. The 'Branch' in the title is more obscure. Behind it lay the first seeds of conflict that were to affect the Railway Company and its successors for over a century — competition, and at times bitterness with the Great Western Railway. Each company had a scheme to provide a railway connecting London with Bristol. One was Brunel's route west through Slough, Reading, Dudcot (sic) and Swindon, and the other the London & Southampton Railway's proposal to construct a branch from Basingstoke via Newbury and Hungerford.

In its favour the London & Southampton could claim to have already secured Parliamentary approval for its main route. They did not, however, have a redoubtable champion in the form of I. K. Brunel to fight their case. It would appear that a number of Bristolians were happy to allow the two Railway Companies to argue their case in Parliament, but nevertheless, there was a body of opinion within Bristol which objected to railway access via a branch line. It was the GWR scheme that finally gained Royal Assent for its Act of Parliament in August 1835. A full year before this the London & Southampton Railway had been successful in obtaining Parliamentary approval for their route to run west from the London Terminus at Nine Elms to Basingstoke and then almost due south through the chalk uplands of north Hampshire to Southampton. Seen on a map the obvious route between the two termini was a straight line via Alton, but the proposed line through Basingstoke allowed for a convenient junction with the projected Bristol branch and so this was chosen. The L & SWR had committed themselves to buying land between London and Basingstoke before the branch scheme to Bristol failed, and it was by then too late to change direction to the more direct route through Alton.



Above: Many of the lines on both the L & SWR and elsewhere were built by outside contractors with the work supervised by a representative of the Railway Company. Messrs. Lucas & Aird were responsible for several contracts on the South Western including widening part of the main line near Basingstoke in 1899. This view, however, was taken on the line between Hampton Court Junction and Guildford in the period 1882-4 and on which three contractor's engines were employed.

Author's collection

Below: Railway construction during most of the 19th Century was almost entirely by manual labour provided by armies of navvies who descended upon an area in consequence of new building. Unfortunately the earliest days of building were not recorded on film and it was not until the period from about 1860 onwards that the camera came to be directed at the railway scene. Even so, views of railway construction are few, and so this one of tipping for an embankment on the direct line to Guildford from Hampton Court in the early 1880s is of particular interest.

Author's collection





Construction near Guildford using one of the new fangled 'steam navvies'. The machine was used to dig out the formation of the cutting and the spoil was removed by the wagons on the contractor's railway. The men were then able to slope the sides of the cutting by hand.

Author's collection

The London & Southampton line was finally opened throughout on 11th May 1840 and although certainly not the first railway in the south of England (for example, the Canterbury and Whitstable Railway opened in 1830), it was still over a year before the GWR completed their route to Bristol. There was no physical connection between the two Companies' lines for some time. Indeed at this period railways were still very much private and rival concerns and so none was deemed necessary or desirable. When a connection was finally proposed, one difficulty was that the L & SR had been built to the standard gauge of 4' 8½" and the GWR to Brunel's wider broad gauge of 7' 0¼". This resulted in mixed gauge rails being added to the existing broad gauge track between Reading and Basingstoke in 1856.

In 1839, and before the main route was completed to Southampton the line to Gosport was approved. The Directors of the L & SR decided to change the Company name to the 'London & South Western Railway', the 'South Western' for short, by which title it continued to be known until absorbed into the Southern Railway group in 1923. There were two reasons

for this. Firstly, the name reflected the intention of the Directors to expand the areas they were going to serve by rail, and secondly they wished to pacify the irate citizens of Portsmouth who did not wish the name of nearby Southampton to be connected with their railway.

The branch was opened from Bishopstoke (later Eastleigh) via Botley and Fareham to Gosport in 1841. Although it was intended to serve Portsmouth, the line terminated on the opposite side of the harbour at Gosport. Unfortunately there had been objections from the naval and military authorities to a railway reaching Portsmouth because they did not approve of a railway breaching the town's landward defences known as the Hilsea Lines. Whilst this may not appear a valid reason today, it must be remembered that in the 1840s there was a real fear of invasion from France. The nearest the railway was permitted, therefore, was Gosport, although even there the line could not breach the town's fortifications and so was forced to stop some way short of the actual harbour.

Unfortunately the Gosport branch had a chequered career right from the start, with the first difficulty

The line from Exeter to Crediton was the main means of access for the South Western into Devon and Cornwall. It was originally built to the broad gauge (7' 0¼"), and was worked by the Bristol & Exeter Railway. Control later passed into the hands of the L & SWR although the legacy of earlier influence is apparent in the Brunel chalet style building.



caused by an earth slip in the vicinity of Fareham tunnel. The line was closed after only four days and did not re-open until some months later. Problems with the unstable nature of the subsoil in the area have persisted ever since.

In 1845 the line from Woking to Guildford was opened, and four years later was extended to Godalming. It was left to private enterprise to extend the railway from Godalming to the south coast at Havant in 1859.

The practice of a private company promoting a line which was later taken over by the L & SWR was by no means uncommon. One of the first, the Southampton - Dorchester route, was opened in 1847 and was known as the Castleman's Corkscrew. The peculiar title was arrived at from the name of the promoter, Charles Castleman, a Wimborne solicitor and from the tortuous path taken by the line which ran via Brockenhurst, Ringwood and Wimborne. Bournemouth

was at first avoided, being little more than a coastal village. The Southampton and Dorchester Company's line was worked by the L & SWR from the outset, although only after a bitter dispute with the GWR who already were intent on reaching Southampton, and was eventually absorbed into the L & SWR in 1848.

In the same year as the line to Dorchester was opened another equally important route had received its first trains. This was from Bishopstoke through Romsey to Salisbury and so making Bishopstoke the first four-way junction on the L & SWR system. The west country and Exeter had always figured large in the L & SWR future plans and for their part, the GWR and Bristol & Exeter companies did everything they could to thwart those plans in favour of their own. The L & SWR had also to decide on the best way to proceed westwards, whether it was to be inland from Salisbury or via a coastal route from Dorchester.

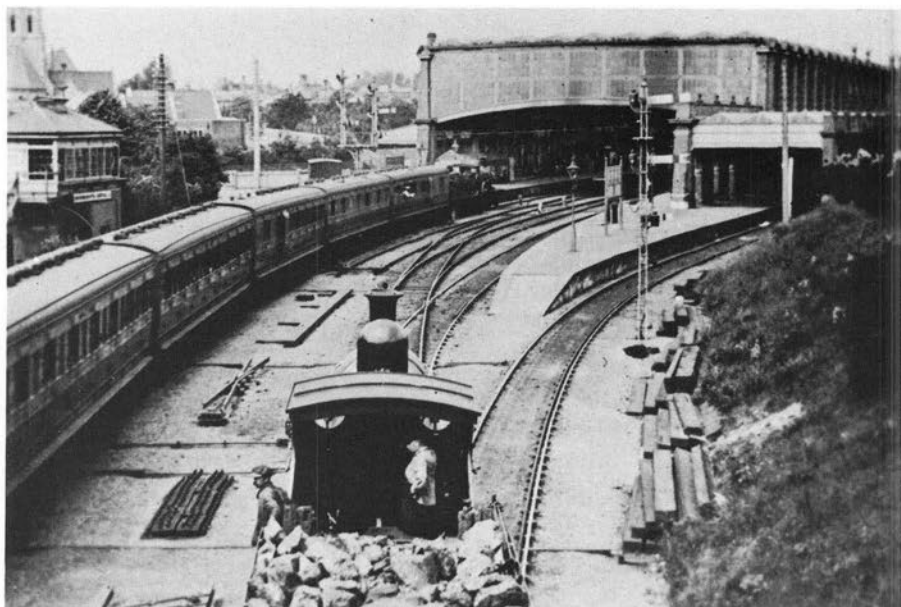


Swaythling station south of Eastleigh was opened in 1883. The architecture allowed for a quadrupling of the main line, if it should ever be required. The covered way which can just be seen immediately to the right of the down side building, led back from the platform and allowed for the retention of the main station building to which it connected. In the event, no changes were ever made and the site has remained basically unaltered for over a century.

Lens of Sutton

The railway reached the popular resort of Bournemouth in two stages, from the west to what was later Bournemouth West in 1874 and from the east to a station on what was later the site of the Central goods yard in 1870. There was no physical connection between the two stations until 1888, three years after the existing station at Bournemouth Central was opened. Looking from Holdenhurst Road bridge, the station is basically unchanged today and still possesses its unusual covered bay platform.

Lens of Sutton



The decision split the L & SWR board. Ultimately, the route via Salisbury was chosen, although the legacy of the projected expansion from Dorchester could be seen until only a few years ago. All 'up' or London bound trains from Weymouth had to reverse into the departure platform which stood on the first part of the proposed Exeter line.

By the 1840s and 1850s, the country was gripped in the fever of railway mania, and for almost 20 years lines were built to serve various locations as well as connect between existing routes, many lines duplicating those of rival railway companies. For each proposal which was actually built, there were others which never came to fruition, perhaps because of competition, lack of forethought or, as time progressed, finance. In many cases, the investor found to his cost that the heady claims of the promoters failed to materialise in the form of the expected dividends.

Some of the proposed routes that did fail both then and in later years make for interesting reading. Most were privately sponsored and include a direct line between Winchester and Salisbury, Andover to Bristol, Bishops Waltham to Bursledon, Alton to Petersfield, Droxford to Ropley and even a through connection from Fawley under the Solent to the Isle of Wight.

By 1870, the South Western had become a major railway system south of the Thames and although the flow of funds for new construction had decreased substantially, partly due to the period of general economic depression countrywide, by the mid 1880s they were once again in a position to promote and build new lines. Many of these were constructed as 'cut-offs', thereby not only reducing operating delays but also preventing any infiltration by a rival company. A number of these 'cut-offs' were within what is now termed the London Suburban area. The most important one outside the environs of the Capital was perhaps the Bournemouth Direct, (Brockenhurst - Christchurch route, via Sway) of 1888. Bournemouth was then reached without recourse to the old line

through Ringwood and as a result the 'Castleman's Corkscrew' began an immediate decline that eventually culminated in closure.

The fear of opposition between railway companies was a genuine worry a century ago. One only has to look at certain areas of the railway map, notably the various north - south connections from the L & SWR to the GWR, to realise how serious a threat this was. It was therefore hardly surprising that eventually both companies were forced into signing a non-aggression pact in which each agreed not to actively promote or support lines in the other's recognised territories. Of course the operative word was 'actively', and there was still a considerable amount of behind-the-scenes wrangling in which the GWR attempted to gain a foothold to Southampton, whilst for its part the South Western sought access to the lines leading to the Midlands.

The L & SWR was by far the more successful of the two and maintained good relations with the independent Somerset & Dorset and Midland & South Western Junction companies. The GWR failed to capitalise on the opportunity the Didcot, Newbury & Southampton line presented and it was not until war broke out that the full potential of this route was fulfilled. No opportunity was lost by either Company to try to gain the upper hand. In consequence lines were built that were in reality of little practical use, but they were built with the real intention of keeping the opposition out. Thus in the 1880s the L & SWR built the delightfully named 'Northern & Southern' junction system from Hurstborne to Fullerton which was intended to provide an alternative route to trains on the GWR backed Didcot, Newbury & Southampton line. To the L & SWR shareholders the Fullerton line was presented as a useful line to the coast avoiding Eastleigh, but in practice it was never used correctly in this role. When this ruse failed to stem the progress of the D.N. & S., the L & SWR successfully countered with a short line from Shawford to Winchester, for which they even provided the necessary funding, so

frightened were they of losing their monopoly of traffic to the developing commercial port of Southampton.

This conflict was not solely directed at the GWR. Elsewhere the South Western connected with the London, Brighton & South Coast and South Eastern Companies and in each case, the working arrangements reflected an uneasy truce based on mutual distrust. At Portsmouth, a compromise had been attempted with a shared station administered by a joint committee of the LB & SCR and L & SWR. Even so, animosity persisted and could be plainly seen at the engine shed at Fratton where South Western and Brighton engines were serviced on adjacent lines but with the staff of each company refusing to acknowledge the existence of the other. Accordingly there were two foremen, two sets of fitters, two sets of engine crews, two sets of breakdown vans and so on. With the seeds of distrust sown so very deep it is not surprising that at the grouping of companies in 1923, when both became part of the Southern, the marriage was not an easy one.

Although the L & SWR had a very early outpost in Cornwall when it acquired the Bodmin and Wadebridge Railway in 1886, by the 1890s the Company had become established in the West Country, a network of lines radiating from Exeter to Crediton and

the far reaches of North Devon and eventually into Cornwall. Padstow, the furthest point from Waterloo was reached from Wadebridge in 1899. There was by now direct competition with the GWR for the traffic to Plymouth and when the regular trans-atlantic liner traffic developed, the GWR and L & SWR became direct competitors for carrying passengers to London.

A disadvantage to these western lines of the L & SWR was the solitary means of access, over 1¼ miles of GWR line at Exeter for which running powers were needed from St. Davids to Cowley Bridge Junction where the Crediton line diverged. The GWR used this to their advantage, by adopting delaying tactics at the junctions concerned. A curious feature of Exeter (GWR) was that passengers destined for London could leave in trains departing in opposite directions dependent upon whether the GWR or L & SWR train was to be taken. The same situation still exists today.

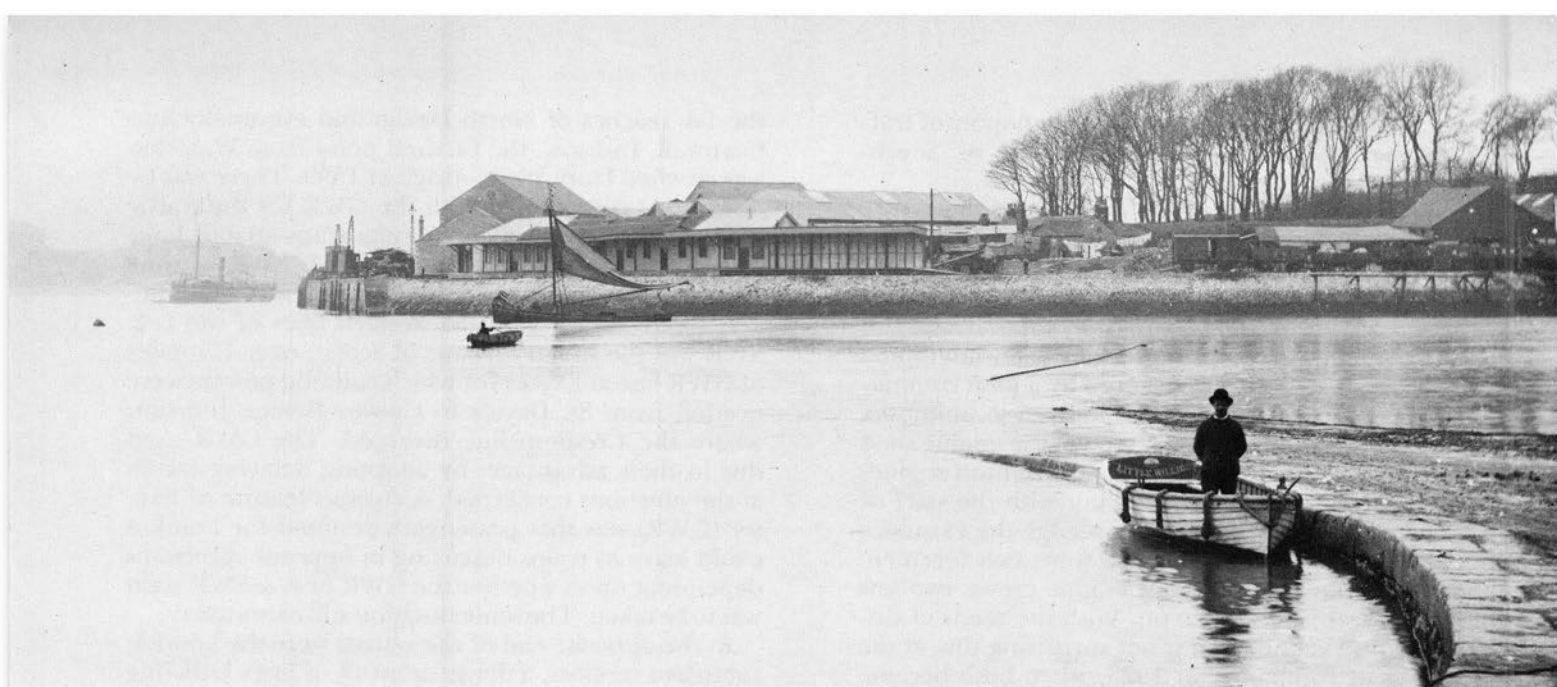
At the opposite end of the system were the London suburban services, a dense network of lines radiating from Waterloo. The terminus had been resited from Nine Elms in 1848.

The South Western was ideally placed to serve the rapidly developing residential areas of south London, and the Directors decided very early on to embark on a programme of building lines into the suburbs. The first of these lines was from Battersea (later Clapham)



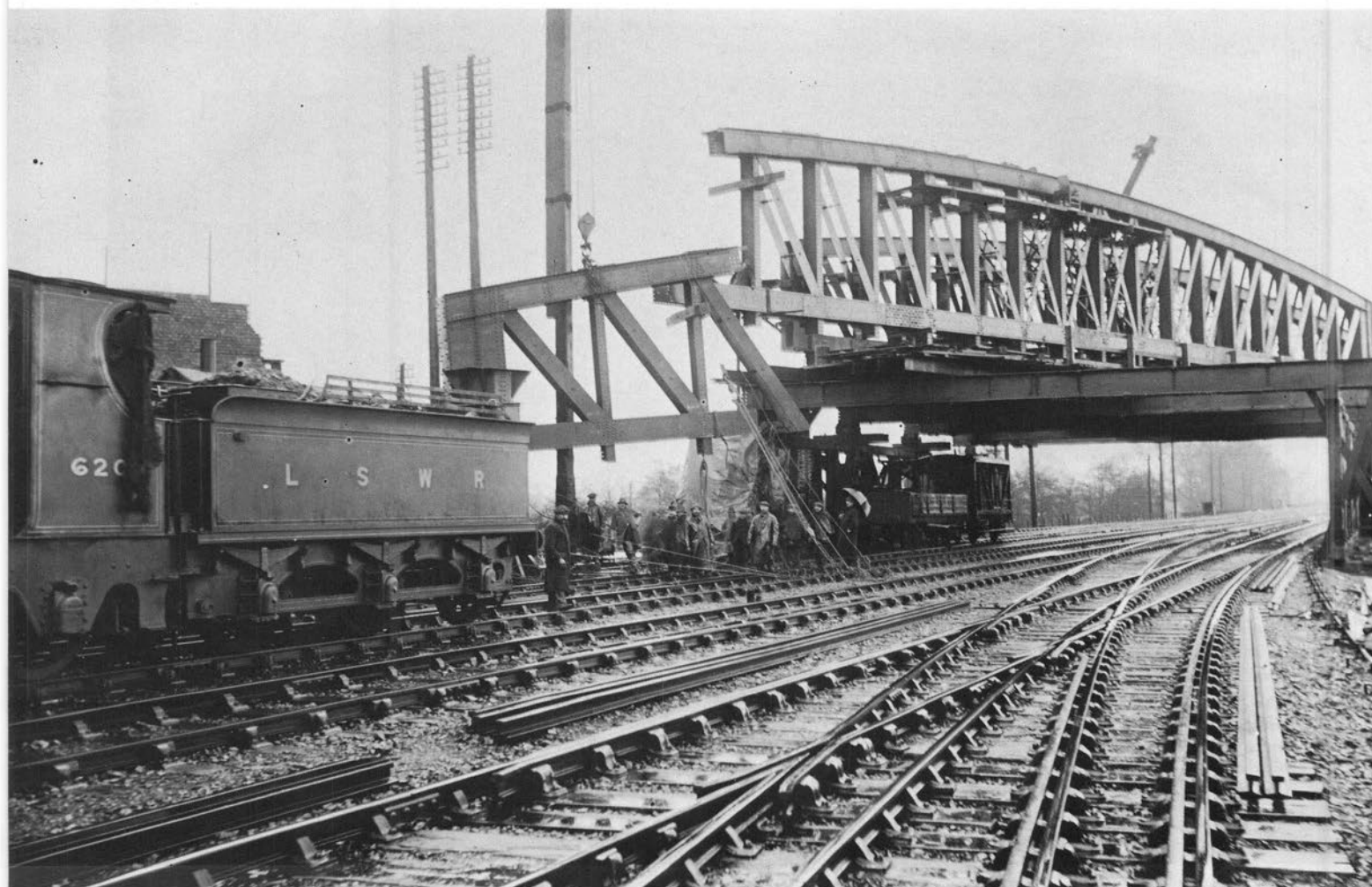
The west portal of the 742 yard Buckham Weston Tunnel on the line from Salisbury to Yeovil which was opened to traffic in 1860. When it was built, there was only a single line through the tunnel, although a second line of rails was added in 1867. The Board of Trade would not allow the new line to be brought into use until the L & SWR had provided notices warning passengers not to lean out of the window or open the door when the train was in motion. The Company, however, stopped short of a further request to provide bars at the window of each carriage. Tunnelling was one of the most expensive forms of railway construction and was avoided whenever possible. Sometimes, there was no alternative and on the line from Basingstoke to Exeter there were five tunnels, the longest, Honiton, being 1345 yards and the longest tunnel on the South Western system. There were, in all, 22 tunnels over 132 yards long on lines that were owned or operated by the Company.

Author's collection



Above: Without doubt the most important destination reached by the South Western in Devon was Plymouth where there was competition with the GWR for the ocean liner traffic. Against a millpond sea, a solitary fisherman has his back to the temporarily deserted Stonehouse Pool Station, which was also known as the Ocean Quay. Trans-Atlantic liners from America anchored in nearby Plymouth Sound where passengers then transferred to a small 'tender' to be landed at the Ocean Quay before boarding the train for the trip to London. In this way almost a complete day was saved on the sea journey. One of the 'tenders' can just be seen in the distance moored at anchor. There were customs facilities at the station as well as the more usual waiting rooms, lounges, buffets and a Post Office. The photograph was taken in May 1904. *Author's collection*

Below: A wet Sunday morning in 1914 with the engineers in the process of erecting the girders for the Hampton Court Junction flyover, another of the improvements introduced to reduce congestion. The work was accomplished by the engine pulling a block and tackle arrangement which in turn was connected to a winch which then lifted the girder. *Author's collection*



to Richmond which opened in 1846. In the same decade, routes such as Chertsey from Weybridge, Richmond to Datchet, the branch to Hampton Court, and the lines to Windsor and Hounslow were built. As the population grew and housing spread outwards from the metropolis the South Western developed a railway system to serve the new residential areas. By the end of the nineteenth century, the suburban service was without equal almost anywhere and at that time operated entirely by steam.

It was though a continual battle to provide for the increased number of passengers. Locomotive types increased in size as traffic dictated and the little Beattie Tanks were superseded by the Adams classes and later still by the large Drummond designed engines.

By the end of the Edwardian era, the South Western were acutely aware of the shortcomings of steam as the prime motive power for its suburban services, especially as the rival LB & SCR had commenced the electrification of its first suburban line in 1909 (the South London line from Victoria to London Bridge).

In an effort to cater for all these problems the South Western embarked on a major series of development plans including the quadrupling of the main line as far as Worting, west of Basingstoke and the point of divergence for the Bournemouth and West of England routes. A number of provisions were also made for this four track section to be carried on towards Southampton although it was never fully undertaken. In addition, the approaches to Waterloo were widened to no less than eight track widths from Clapham Junction, a considerable engineering achievement espe-

cially as this section is almost entirely on viaducts and involved the costly purchase of a number of properties. At the same time Waterloo itself was almost totally rebuilt and fly-over connections were established at a number of junctions to avoid conflict with cross movements. Surprisingly, the Portsmouth line junction at Woking was not dealt with. The stations on the widened route were almost completely rebuilt and modern mechanical signalling was provided, allowing for maximum line capacity.

A decision was also made by the Board of Directors to commence electrification. The South Western adopted the third rail system rather than the overhead wire used by the LB & SCR for two reasons: firstly, it cost less and secondly, the time taken for implementing the scheme. The restrictions of this decision was not realised until later when it was decided to develop the system for longer routes. The first route to be electrified was from Waterloo to Wimbledon via East Putney and Wandsworth in 1915. A number of further lines, notably to Strawberry Hill, Shepperton, Hampton Court, Claygate and the Hounslow loop were similarly treated the following year with power generated from the Railway's own

The line to Richmond via Gunnersbury was jointly operated for part of its length with the District company with steam and electric services running side by side for some years. Here an '02' tank waits at Richmond on a train of six-wheeled stock bound for the line to Gunnersbury, whilst on the extreme left it is possible to make out the 'main line' towards Feltham.

H.M.R.S.





Widening the main route near Winchfield and not far from where the present M3 Motorway crosses the railway. The extent of the work is obvious with what was in effect a complete new pair of lines built on one side. The sides of the cutting have of necessity a very gentle slope especially as there is evidence of slipping in the background. *Author's collection*

power station at Durnsford Road near Wimbledon. Success was immediate and the number of passengers carried was increased. Unfortunately, the effects of war precluded further expansion for some time and it was not until the inauguration of the Southern Railway that electrification was really developed beyond the suburban system.

The final years of the South Western's independent existence also witnessed a tough management not afraid to rid itself of under used resources. The terms 'rationalisation' or 'closure' are not words just related to the modern vocabulary.

The first closure had in fact come about as early as 1848 when Nine Elms ceased operation as the London passenger terminus in preference to the new station at Waterloo. In 1896, the little line from Hamworthy Junction to Hamworthy was closed to passengers although the line remained open for goods. The axe really began to fall from 1911 onwards, when the connection between Waterloo L & SWR and Waterloo South Eastern, which had been built to transfer goods and parcels, was closed. In August 1914, the Fratton - East Southsea branch ceased running, and with the melancholy distinction of the first true line closure. Southsea was one of the favoured destinations for trippers, but local competition from street tramways had reduced rail traffic to a minimum. Because a suitable junction had not been provided at Fratton for trains from London, passengers had to change trains, and rather than wait for their connection, they used the better facilities the trams could offer.

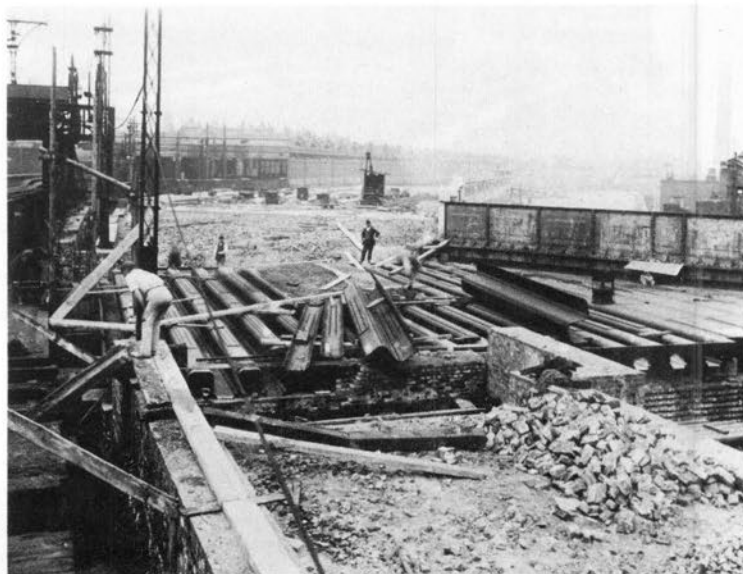
With the closure of the Stokes Bay line near Gosport, the South Western may well have lost an opportunity for a short, fast and efficient crossing to the Isle of Wight. A few years later consideration was given to the possibility of re-opening this line, but it was never carried out.

Despite reductions on some parts of the system, three lines were actually opened between 1915 and 1918 — Dinton to Fovant, Deepcut to Blackdown and the branch from Wool to Bovington Camp. All were

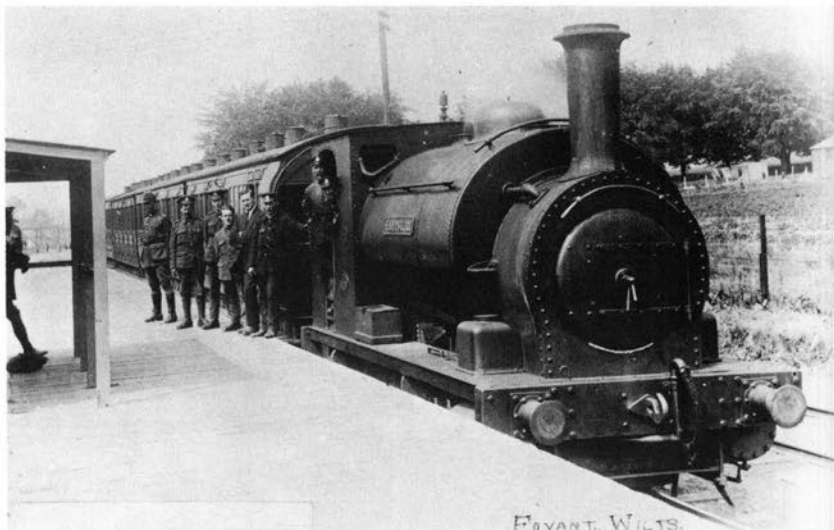
intended for use by the military. All these routes closed shortly after the war ended. Two other earlier railways serving military premises at Bisley and Bulford survived into the British Railways era.

With a resumption of peace in 1918 the arrears of maintenance caused by four years of war were substantial and it was some little while before services could resume their pre-war schedules. But unlike its neighbours, the L & SWR almost immediately re-commenced an expansion programme with the first major work announced in 1919 for a freight marshalling yard at Feltham. The design of Feltham as a 'hump'

Rebuilding Waterloo Station around 1900, the London terminus of the L & SWR. The increasing popularity of railway travel, both commercial and social, meant that the station and its environs had to be enlarged several times, the legacy of which is still visible today in the variety of architecture present. *Author's collection*



One of the military lines that had a brief life was that of the two miles from Dinton to the military camp at Fovant. At times, the traffic on the branch was so heavy that trains on the main West of England route were seriously delayed. This rare view of the terminus at Fovant shows a group of soldiers posed alongside their train, the engine of which was operated by the Army and carried the name *Hampshire*. *Lens of Sutton*



yard was in itself an innovation, years ahead of the other railway companies and a prelude to what British Railways themselves built about 30 years later.

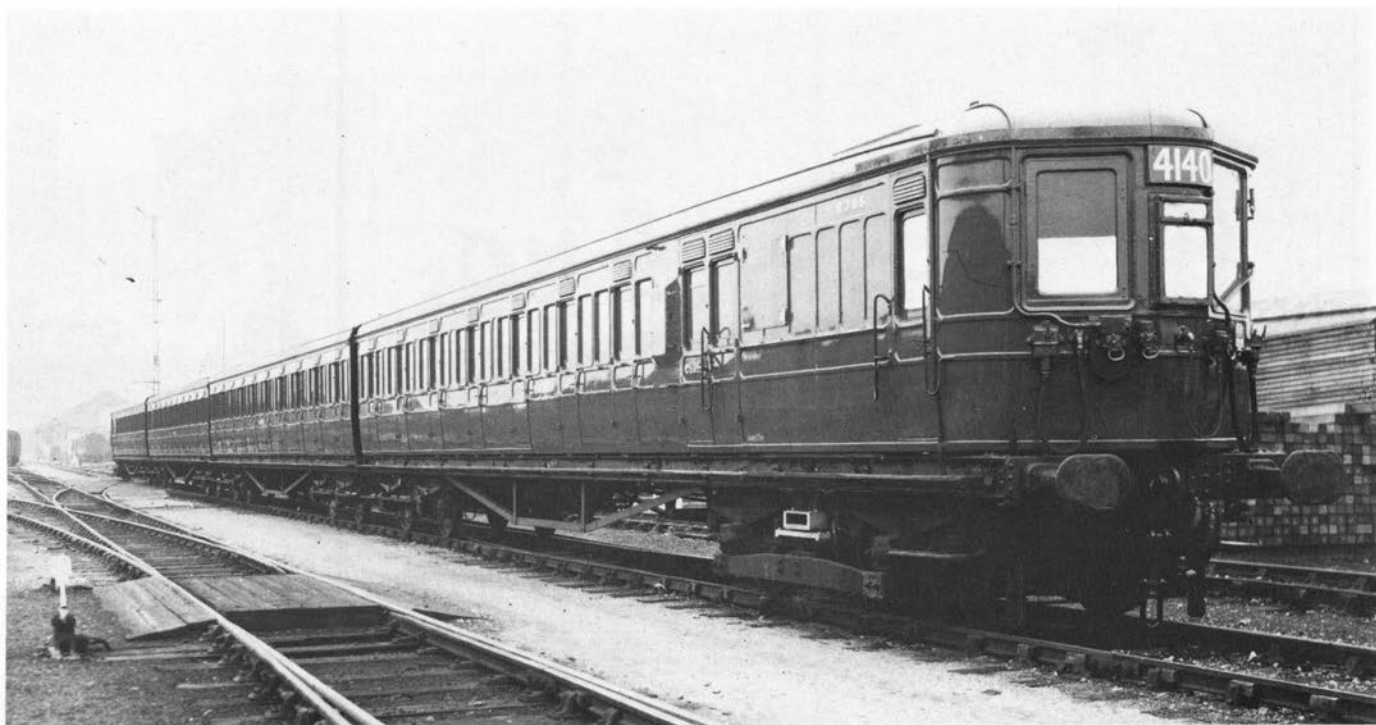
By 1921, and again some years ahead of its rivals, almost a full resumption had been made of the express passenger timings necessarily curtailed during the War. No doubt this was partly a result of the dynamic leadership of the Company under the General Managership of Sir Herbert Walker.

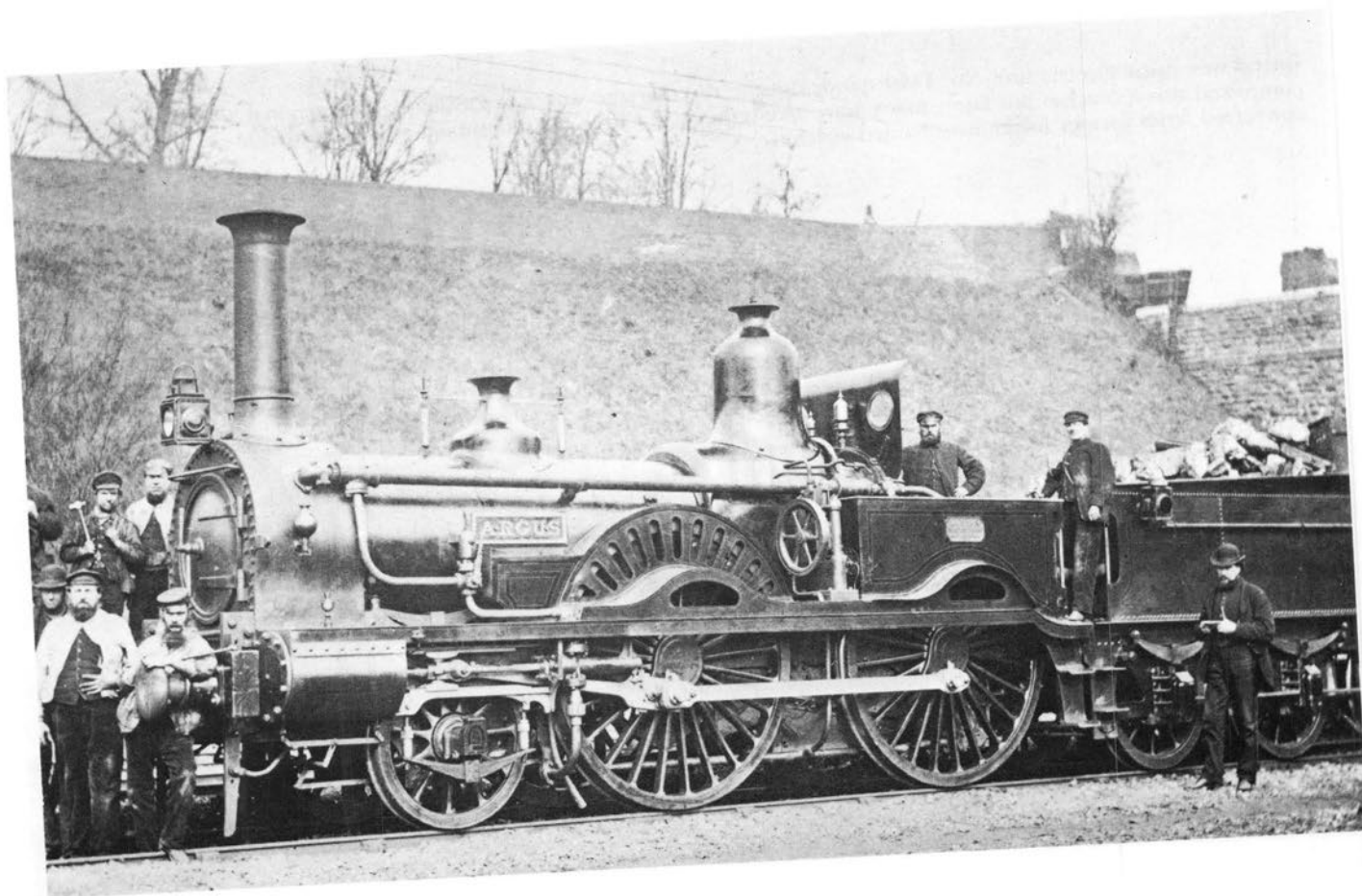
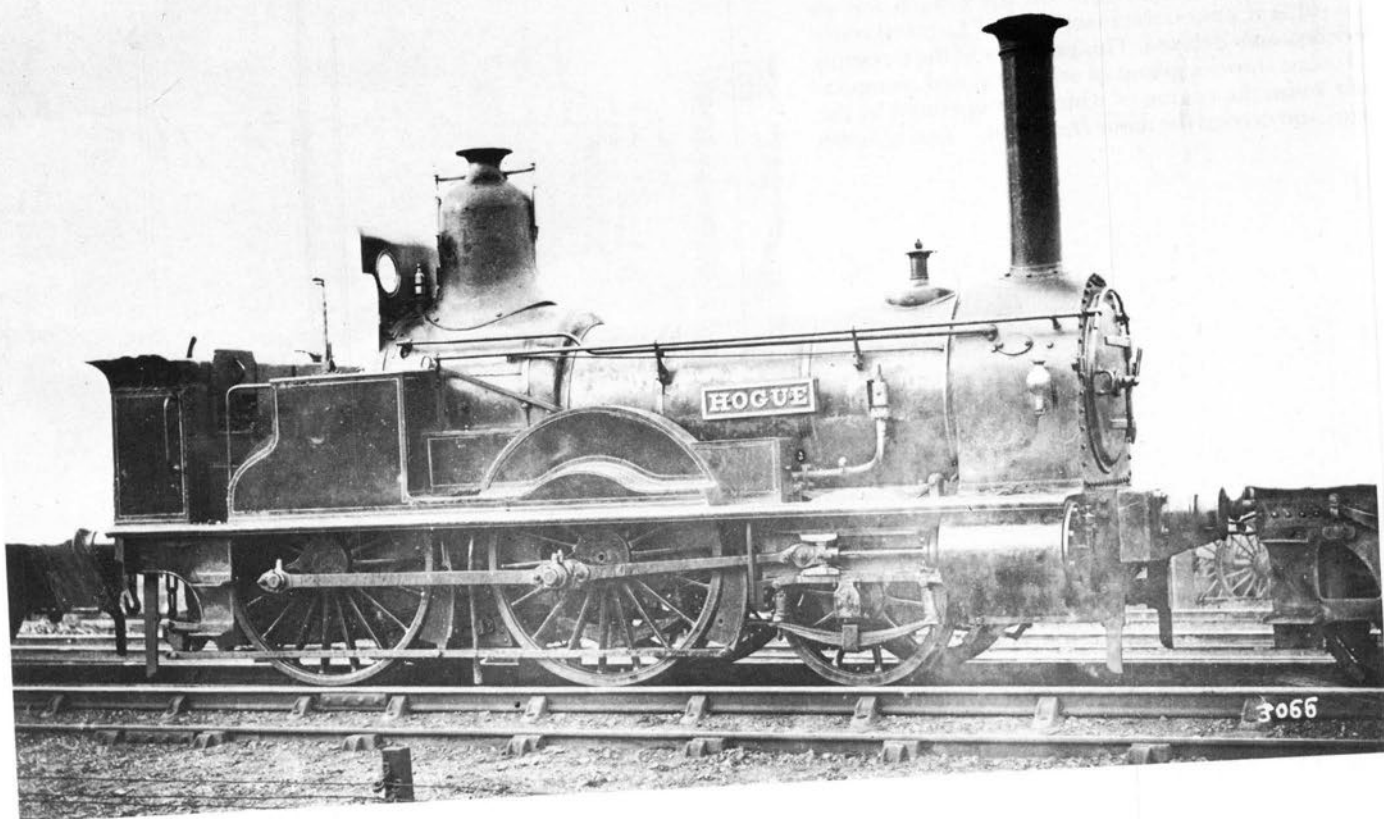
Under the terms of amalgamation into the Southern

Railway system in 1923, the L & SWR lost its identity, but not its influence, for Sir Herbert Walker was to remain at the helm of the Southern Railway until 1937. During this period, third rail electrification encompassed the main routes of all three of the Southern Railway's constituent companies. The L & SWR may have officially ceased to exist from 1st January 1923, but its legacy remains to this day, a fitting tribute to the first promoters of the London and Southampton railway 150 years ago.

Brand new 4-car electric unit No. 4140 stands outside the carriage works at Eastleigh. The original South Western units comprised three coaches but later, many were strengthened to four-car sets similar to that shown here. A number were converted from former locomotive hauled coaches.

B. & J. Curl collection







Mechanical Progress

Locomotives and their Engineers

The facilities available to the early engineers were decidedly primitive with few if any power tools. Early ideas too were a little primitive by today's standards. One Victorian eccentric's idea for railway rolling stock, whose name has been lost in the passage of time, "... desired to insert feather-beds between the carriages in lieu of buffers, and to suspend a bed of extra proportions in front and at the tail of each train ...". Another equally well intentioned thought, "... urged that the engine ought always to be a mile to a mile and a half in advance of the train, connected to it by a sufficiently strong rope. In case of an accident the engineer only would be imperilled."

Such suggestions, although without doubt well intended, were based on the fear of trains travelling faster than man had ever believed possible. For whilst

the Victorian locomotive engineers had certainly produced machines that could run and haul considerable loads, they had devoted little attention to the matter of brakes, trackwork or signals, the latter in particular being in a very early stage of development. It was to take a series of accidents countrywide before the Government insisted on certain safety standards.

The earliest locomotives used on the London & Southampton Railway were supplied by outside contractors and were the responsibility of the first locomotive engineer, Joseph Woods. In adopting a policy of buying engines from reputable firms, Woods avoided burdening the embryo L & S Company with building its own locomotives, something which had proved difficult for some other railway companies. Woods remained in office until 1840 and was replaced by John

As train speeds and weights increased, larger engine types were needed and the larger size of boilers were an obvious indication of this advancement. No. 279 of the "Vesuvius" class was built in 1873 and yet was redundant as early as 1897. The engine is shown here after being rebuilt by Adams in 1886.

A. Molyneaux collection



Opposite top: Built at Nine Elms Works in 1859 to the design of Joseph Beattie, *Hogue* was one of three engines which formed the basis from which the renowned "Well Tanks" evolved. This particular machine is recorded as having cost £1850 and initially worked on the suburban services out of Waterloo. A few years later it was transferred to Guildford and spent the last years of its life on the lightly loaded Stokes Bay branch before withdrawal in September 1882. *A. Molyneaux collection*

Opposite bottom: Another Beattie design was 2-4-0 No. 69 *Argus* of the Falcon Class, the first of which was introduced in 1863. There were 17 engines of the type and they were used to haul main line express trains. *Argus* lasted in service until June 1886 although for a while before this the engine had been relegated to secondary and stopping duties.

A. Molyneaux collection

Gooch whose brother Daniel had already established a reputation for himself in a similar position on the GWR. It was during Gooch's reign that the first locomotives were produced at the Nine Elms works of the L. & S.W.R.

Ten years later in 1850, Joseph Beattie took over control and quickly established himself, not only as a capable engineer but also as a man with a fiery temperament. He was succeeded in 1871 by his son William Beattie who in the main continued building locomotives to the designs of his father. When new and more powerful machines were required, they were designed by W. Beattie and ordered from outside contractors. They were not successful and led to W. G. Beattie's downfall in late 1877, when he resigned on 'ill-health' grounds.

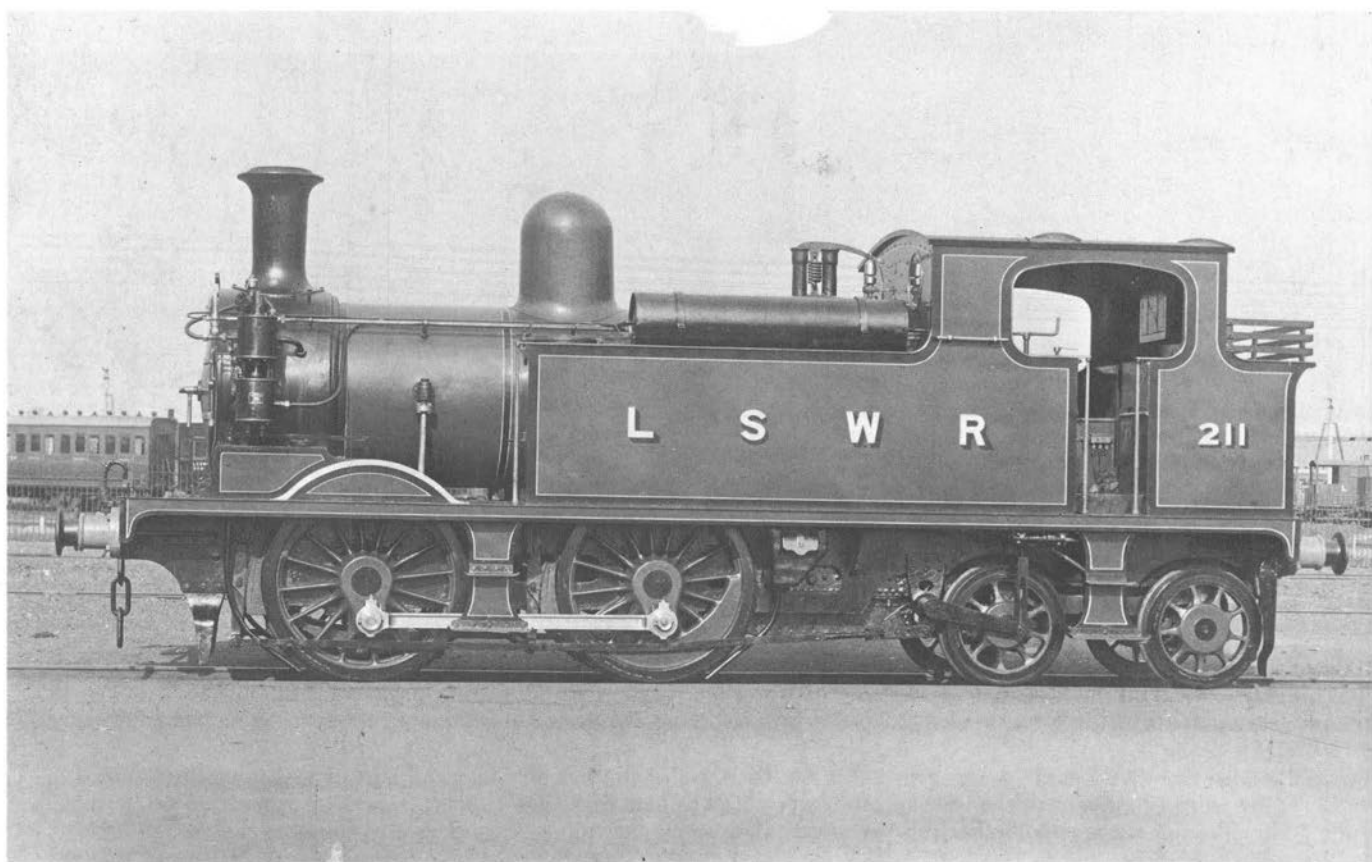
During the 1880s train loads and speeds had been rising and the Directors urgently sought a new engineer who would be able to meet the demands of the traffic department. Their choice eventually fell on William Adams under whose tenure a total of 524 engines were constructed to eight basic types, ranging from the small 0-4-0T 'B4' class intended for dock shunting to the superbly proportioned 'T6' and 'X6' 4-4-0s of 1895/6 which were built for express passenger use. A measure of his success is that several examples of his designs survived well into the last days of BR steam operation.

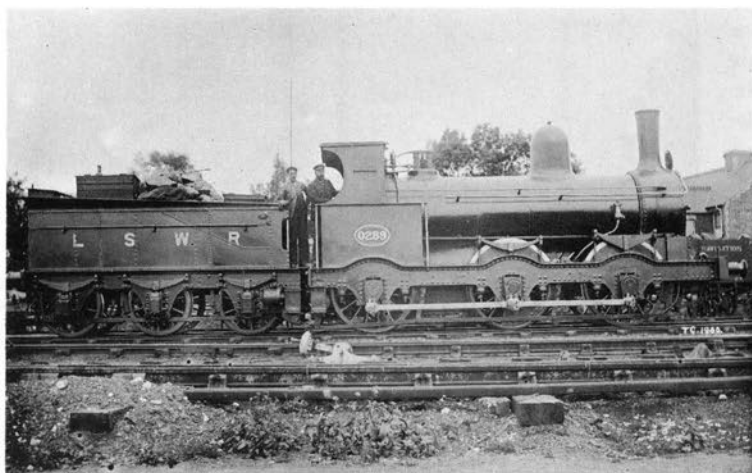


William Adams, Locomotive Superintendent of the L & S.W.R. from 1878 to 1895. *Author's collection*

The little '02' tank engine design of 1889 was one of William Adams' success stories. Compact and relatively powerful, they remained in service until well into BR days, with the last members of the class not withdrawn until 1966. No. 211 is shown as it was running around 1923 complete with a newly-fitted Westinghouse air pump and reservoir for use on the Isle of Wight railway system.

A. Molyneux collection





No. 0289 was one of 24 engines built by the Manchester firm Beyer, Peacock & Co. between 1865 and 1873. Originally allocated the number 289 the 'O' was added around 1899. Most of its life was spent working freight trains with some years based at Yeovil shed. The engine was first withdrawn in late 1913 but had not been scrapped when War was declared and all cutting up temporarily ceased. It was returned to traffic at Guildford in October 1917 and finally condemned in 1921.

Author's collection

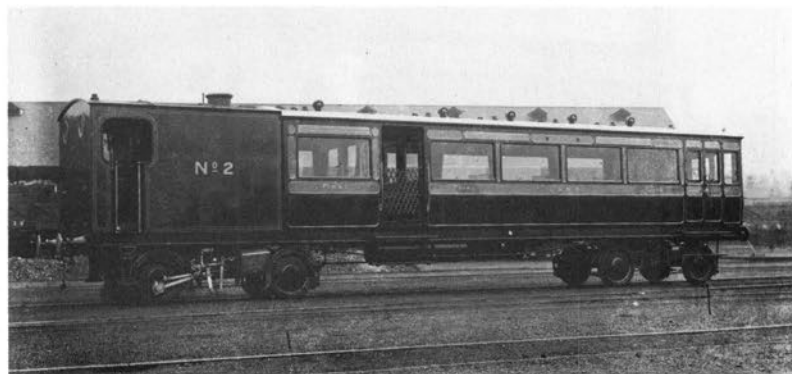


Built as an experiment in 1897, No. 720 was a 4-2-2-0 engine with four cylinders and without having the driving wheels coupled together. Following a series of trial runs, No. 720 was set to work on main line services but proved to be an erratic performer and certainly by no means the equal of a 'T9'. It was withdrawn in 1927 having achieved a recorded mileage of 357,207. The engine is shown here whilst on a test train, the indicator shelter on the front buffer beam being for test purposes only.

B. & J. Curl collection

Following the first steam railmotors built for use on the Southsea branch, Drummond designed the 'H12' class of which two were built in 1904. The engine portion was almost totally enclosed, whilst accommodation was provided for 8 first and 32 second class passengers. Unfortunately, in service the small boilers fitted proved incapable of supplying sufficient steam and they were often brought to a halt by the steep gradients typical of the lines they worked. Another difficulty was that dirt and dust penetrated the passenger compartments, especially whilst in the running sheds for servicing. Nos. 1 & 2 only lasted until 1914, before being withdrawn.

B. & J. Curl collection



Adams retired in 1895 and was replaced by perhaps the best known of all the South Western locomotive men, the redoubtable Dugald Drummond. As his name well implies, Drummond was a Scotsman. He was considered to be somewhat of an eccentric, capable of producing machines equal to every task and a match to anything on any other line, yet, in some other types the design was so unsatisfactory that it is difficult to imagine how a man of such undoubted ability could not fail to see problems early on. Allied to a stubbornness of temper this made him a feared man and even the strongest worker would be apprehensive should the designer stop to talk during his frequently unannounced visits to the workshops and running sheds.

Under Drummond's tenure the L & SWR introduced their first successful steam railmotors which were put to work on the Southsea branch operated jointly with the LB & SCR. Unfortunately, the designs suffered from insufficient boiler capacity, although once larger boilers had been fitted, the performance was greatly improved and they were then used on a number of light branch lines.

It was not only in his locomotive designs but also in his organising abilities that Drummond's talent lay. It was he who successfully masterminded the movement of the locomotive works from Nine Elms to Eastleigh in 1909 and without any loss of output during such a traumatic time. Following a footplate accident he died in 1912 and is buried in Brookwood cemetery alongside the South Western main line, his funeral train appropriately hauled by a locomotive of his own design.

The last Chief Mechanical Engineer of the Company was Robert Urie who had been Chief Draughtsman under Drummond since 1897. Urie was charged with the final chapter of locomotive development on the independent L & SWR, including the difficult period of the first World War. In many ways the work of Urie shadowed that of Churchward at Swindon, with both men advocating the use of superheaters, outside cylinders and six-coupled wheels.

The locomotives of Urie were simple and functional. He built large 4-6-0s suitable for both pas-



Largest of all the Drummond designs were his 4-6-0 classes. 'G14' No. 457 is shown here west of Wilton with a down Exeter express. *B. & J. Curl collection*

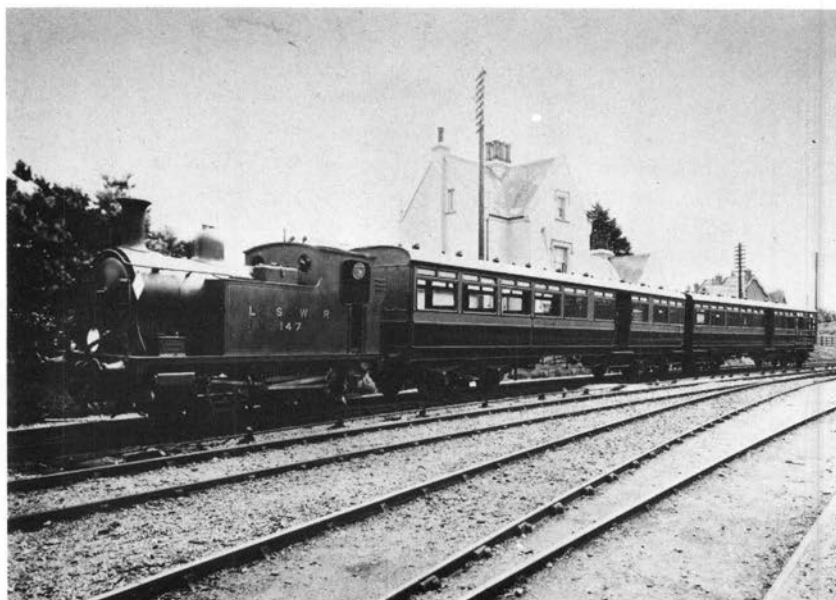
senger and goods work, with the first eleven being in service less than two years from when he had taken office. These new engines proved a valuable addition to the locomotive department, and were followed by a similar design, the 'N15' 4-6-0s in 1918. Shortly afterwards came the big 4-8-0T and 4-6-2T designs intended for shunting work at the new Feltham goods yard and for the cross-London freight traffic. A total of 75 engines were built to Urie's designs. The new CME of the Southern Railway, R.E.L. Maunsell considered them good enough to be used as a basis for future development and most survived into BR days, a fitting tribute to the locomotive department of the L & SWR.



For a short while between November 1919 and August 1920, the L & SWR had the use of a number of Great Central Railway designed 2-8-0s which were used to augment a temporary shortage of motive power on goods workings. No. 2124 served for a time between Salisbury and Exeter and apparently made light work of the switchback gradients on this line. She is shown here, however, outside Eastleigh shed. No. 2124 was eventually sold to the GWR and given the new number 3099. *A. Molyneux collection*

Following the steam railmotors were the 'motor tank' designs which reverted to having a conventional locomotive with sufficient power to haul a reasonable load. Two types were built, the 'C14' and 'S14' classes, with No. 147 of the latter type posed for the official photographer by the old station at Christchurch on the line from Ringwood. The two trailer cars were to the standard L & SWR design of the period and referred to as 'gate stock' because they were fitted with metal concertina access gates rather than conventional doors.

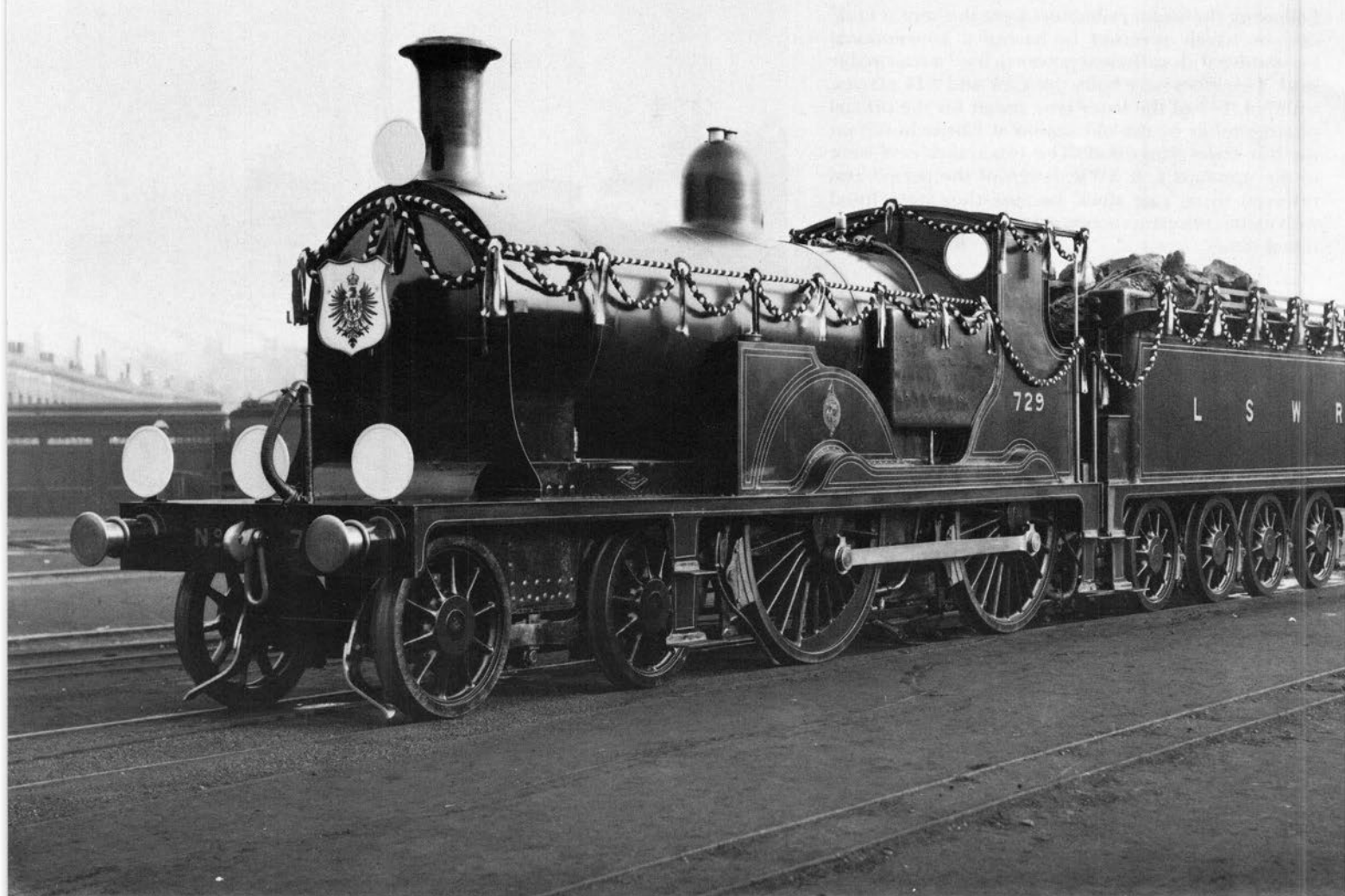
British Railways



L & SWR express of the Adams era with 'X2' 4-4-0 No. 582 passing Wimbledon with a down train, possibly bound for the West Country although the head code is a little obscure. In the background, another Adams design, a 'G6' 0-6-0T is on a works train involved in the construction of lines into what later became the Wimbledon electric depot. Behind this, a set of rails lead off to East Putney. The tree-lined horizon has long since vanished to make way for residential and commercial development.

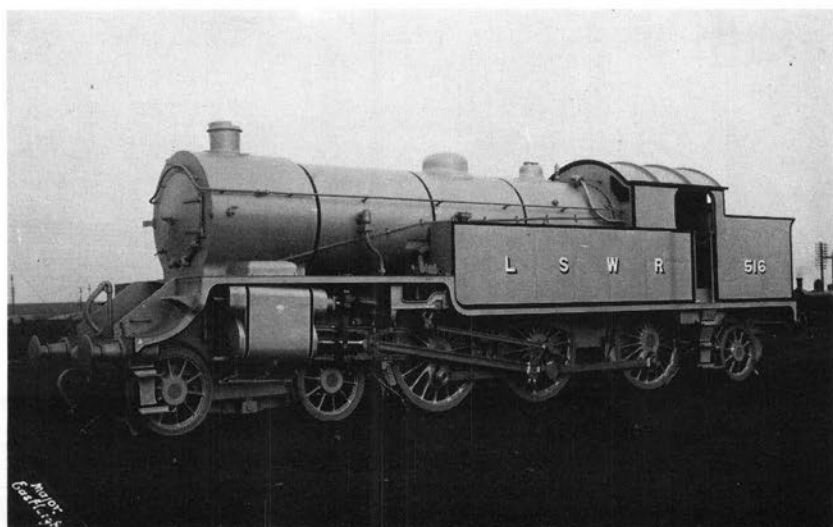
B. & J. Curl collection





Drummond's 'masterpiece', a 'T9' 4-4-0 outside Nine Elms works and decorated for a royal train working. No. 729 was built in December 1899 and remained in service until March 1961. Known as 'Greyhounds' because of their free running characteristics, the class were popular engines and were frequently to be found on services in the West Country.

B. & J. Curl collection



First of Robert Urie's 'H16' 4-6-2 tanks, No. 516, which were used primarily on cross-London freight traffic. The engine is shown when new at Eastleigh and depicted in photographic grey.

A. Molyneux collection

Another Urie design, this time No. 488 of the very successful 'H15' class. The engine is seen after the Andover smash of 1914 when the driver of No. 488 failed to heed a stop signal and collided with the rear of a livestock train. This was the view after part of the wreckage had been cleared but with the engine still awaiting re-railing. *Author's collection*



Carriages and Wagons

Prior to 1844 third class passengers had travelled in simple flat trucks equipped with movable seats whilst facilities for first class passengers were the complete opposite with plush furnishings as standard. After 1844 matters improved slightly for the lower ranks with a covered 3-compartment 'Parliamentary Carriage' although no less than 30 passengers were squeezed into the available space.

The 1860's carriage stock consisted in the main of unremarkable 4-wheelers, often with a solitary oil lamp to illuminate as many as four compartments. Uninspiring though they might have been, they were no better and no worse than any others elsewhere.

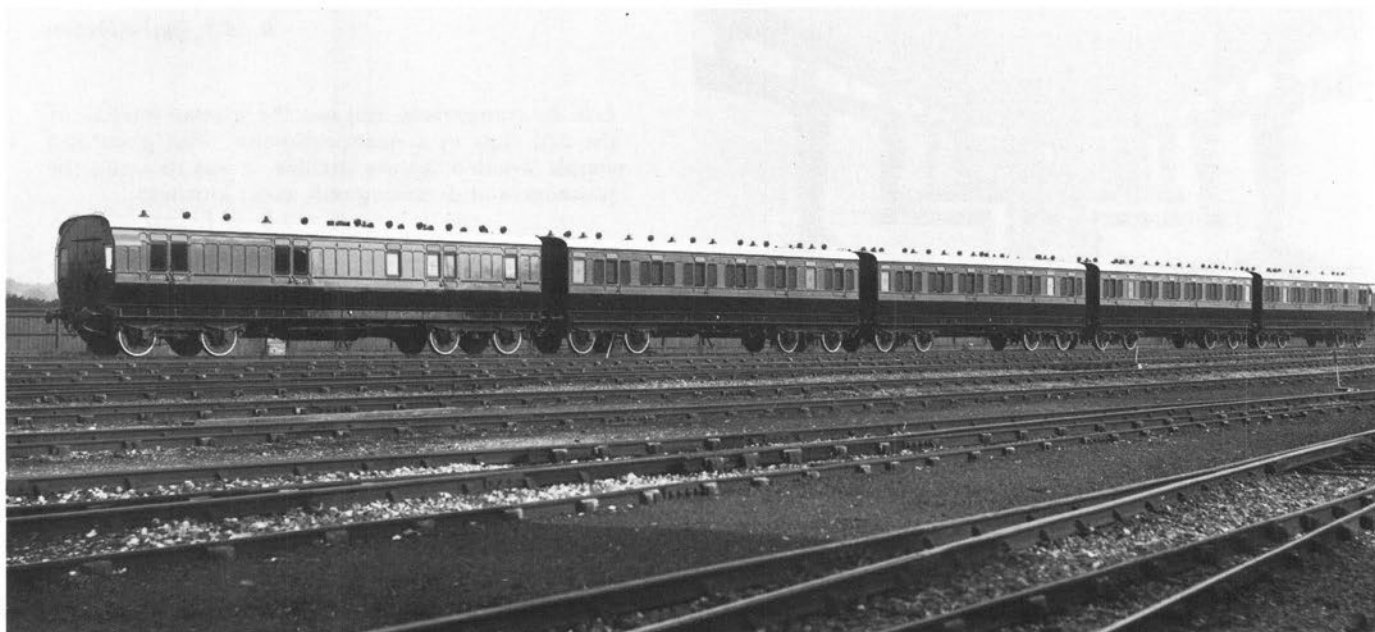
Four wheeled passenger stock was still being built for general service as late as the 1870s and it was only at this time that the first six-wheel coaches were produced with their better riding characteristics. This same wheel arrangement was used for the suburban

sets of 1883, each set comprising six 6-wheel coaches marshalled and formed into two sets per train for the rush hour services. This was one of the earliest occasions vehicles remained in set formation, a tradition that continued right up to the cessation of steam working under BR.

Despite the improvements that had occurred over the years, heating was not provided and instead, from 1878, rugs of varying quality were supplied — but only for 1st and 2nd class passengers. In addition, and for those that could afford it, 'Foot warmers' (metal hot water containers) were available at a number of stations. Even so there were complaints, some saying the plain L & SWR type of foot-warmer caused chilblains and were poor compared with the carpet-covered variant used in France. An irate passenger of 1880 wrote to the railway management as follows:

Five-car set of coaches dating from 1898 and converted for use as a home ambulance train. Note the cross on the windows.

B. & J. Curl collection



"... if you try to obtain a footwarmer you are pretty sure to find that the train is just going off; perhaps there is one, but you have to pay 3d for it . . . the porter may say 'perhaps I may find one for you'. After some time has elapsed and you have given him 6d, and before the man has time to give you change, away goes the train, and either you have or you have not your footwarmer."

Another complaint was that of dirty and damaged trains. Whilst the first could be directly due to railway management there was little the company could do to stop vandalism, although an effort was made by awarding a £5 gratuity to staff for information leading to a conviction. In addition the riding qualities of the vehicles came in for frequent criticism, although it was not until a succession of derailments in the 1880s that the Board of Trade forced the Company to improve both its trackwork and springing of rolling stock.

In 1890, W. Panter, the Carriage Superintendent built a number of 'tri-composite' vehicles for use on the West of England trains. The term 'tri-composite' referred to the provision of separate compartments for 1st, 2nd and 3rd class accommodation. These vehicles were also provided with lavatory facilities. Lighting was by gas. Below the solebar the vehicle rode on pressed steel bogies whilst the automatic vacuum brake was a standard fitting to all coaches from 1881 onwards.



Above: Edwardian opulence — the interior of a restaurant car dating from about 1905. The framework was grained and varnished deal, which was upholstered in red and black moquette.

B. & J. Curl collection



Left: By comparison, this was the spartan interior of the 3rd class in a steam railmotor, with plain and simple wooden seating suitable, it was thought, for passengers undertaking only short journeys.

B. & J. Curl collection



Left: Female carriage cleaners at Wimbledon about 1917. In the background is a motor coach from 3-car electric unit No. F8 with accommodation for only 1st and 3rd classes. At this time, the external cleaning of coaches was carried out entirely by manual means and whilst it must be admitted the vehicle here was nearly new, the finished work was to a very high standard.
National Railway Museum

A major innovation came in 1893 when the 'Eagle' vestibule stock was introduced, intended primarily for the liner traffic from Southampton. The 'Eagles' were formed into 9-car sets with a 6-wheeled van at each end intended for luggage. For a short while the vehicles ran as built without a corridor connection although these were added shortly after introduction into service enabling a luncheon car to be added to the set.

At about the same time, two Pullman coaches were built at Eastleigh, the only ones ever to be built there. They were used on the Bournemouth services in addition to the pair of similar vehicles built by the Pullman Car Company which had been in use since 1890.

By the mid 1900s, almost all the main line trains were formed of modern eight-wheel bogie coaches. Although many still lacked corridors they made up for this in other ways. A first class compartment, for example, allowed for just two-a-side seating and with a yard of seat for each passenger. According to Hamilton Ellis this was based upon the requirements of the new Carriage Superintendent, Surrey Warner, a generously proportioned man and for whom it was necessary to "... design accordingly". The second class passenger coach allowed for a comfortable ride in four-a-side compartment seats. Third class passengers still sat five-a-side but again in tolerable comfort. Later, under the management of Sir Herbert Walker, the first class compartments were re-designed to cater for a more economic three-a-side seating.

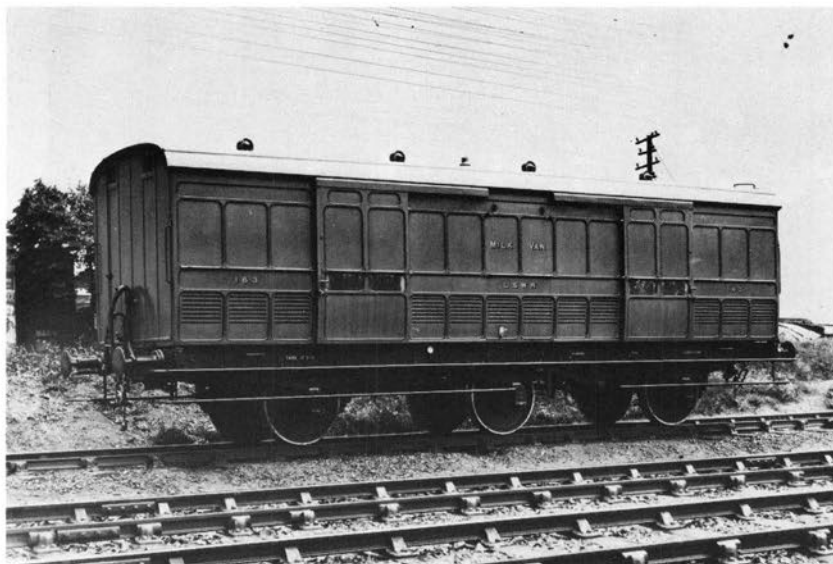
Towards the last years of its life, the Company introduced Dining Saloons (the term *Dining Car* was never used), electric light, Sleeping Cars and Tea Car Trains on most of its main line services. The Tea Car Trains were in five car sets and used mainly on the Bournemouth line services. Here again the South Western pre-empted what BR later provided with a variety of grill snacks available instead of the conventional sit-down meal. Whilst this venture was an undoubted commercial success the same could not be said of the

Below: Waterloo station towards the end of the first World War with lady ticket collectors having replaced the menfolk away with the forces. In the platform is one of the first electric sets of compartment stock and painted in the special livery of plain green.
National Railway Museum



The high standard of coachwork displayed on the bodies of passenger stock is also evident with this elegant milk van. It incorporated modern sliding doors, ran on six wheels and its vacuum brakes allowed it to run at speed in passenger trains. The livery above the solebar, excluding the roof, was all over pink.

National Railway Museum



Sleeping Cars. This was partly due to the relatively short distances of even the longest runs, the longest of all being the Plymouth-Waterloo Ocean Liner expresses. Following the boat train disaster at Salisbury in 1906 the Sleeping cars were disposed of to the GWR.

Freight traffic was never as important a part of the operations of the L & SWR as it was with many other railway companies, particularly those whose territories included strategic mineral deposits which were moved by rail.

Freight vehicles of sorts had appeared from the time the railway opened with the majority being open wagons which were intended to be used for all pur-

poses. Such an ideal soon foundered on practical considerations and so closed vans and other vehicles designed for specific traffic requirements were built. Later came refrigerated vans for frozen meat from Southampton Docks and ventilated milk vans, a number of these being fitted with dual vacuum and westinghouse brakes and painted in the passenger livery. Milk traffic was an important part of the railway business with about a million churns handled at Vauxhall for Londoners every year. During the summer months these same vans were used for the movement of strawberries primarily from Swanwick and Botley stations in Hampshire.



A standard 12-ton open wagon with tarpaulin bar, side doors and conventional leaf springing. A number of these vehicles were also built with the more unusual spiral springs.

B. & J. Curl collection

Most of the wagons and vans were built by the South Western at Nine Elms and Eastleigh although a number were supplied by various outside contractors to the Company's specification. In addition the railway companies had adopted the 'pool' system under the auspices of the 'Railway Clearing House' with the result that a wagon belonging to one railway company could be used elsewhere to save unnecessary empty working. In this way wagons lettered with almost every letter or logo were to be seen, together with a vast number of private owner vehicles.

Three types of wagon deserve a special mention, the first of these the massive bogie hopper wagons built especially for the Meldon Quarry stone traffic. When they were introduced around 1904, these vehicles were truly ahead of their time, with a carrying capacity of 40 tons allied to an empty weight of only just over 17 tons. The design became the basis for the

present-day standard BR hopper wagons.

Shortly after this, in 1911, Eastleigh built a series of brake vans with the unusual feature of a separate parcels compartment. How successful these were is not recorded for the design was not repeated later although it would appear to have been a sensible arrangement where the working of mixed trains was concerned.

Horse boxes could be seen on the metals of most railway companies, but those provided by the L & SWR attracted special attention from Hamilton Ellis:

"... Horse boxes on the other hand ... short-wheel-base four wheeler, at the back of the train, with the smell three horses could produce during several hours of close confinement on a night train, was uniquely awful. Further, the South Western horseboxes were in some respects curiously archaic; their design showing signs of having been a Beattie bequest."

Exeter, South Western around 1900 with a variety of passenger and goods rolling stock in the yards including both six-wheeled and bogie coaches, and in the centre, a rake of tarpaulin wagons. Livery of most general purpose goods rolling stock at this time was plain brown.

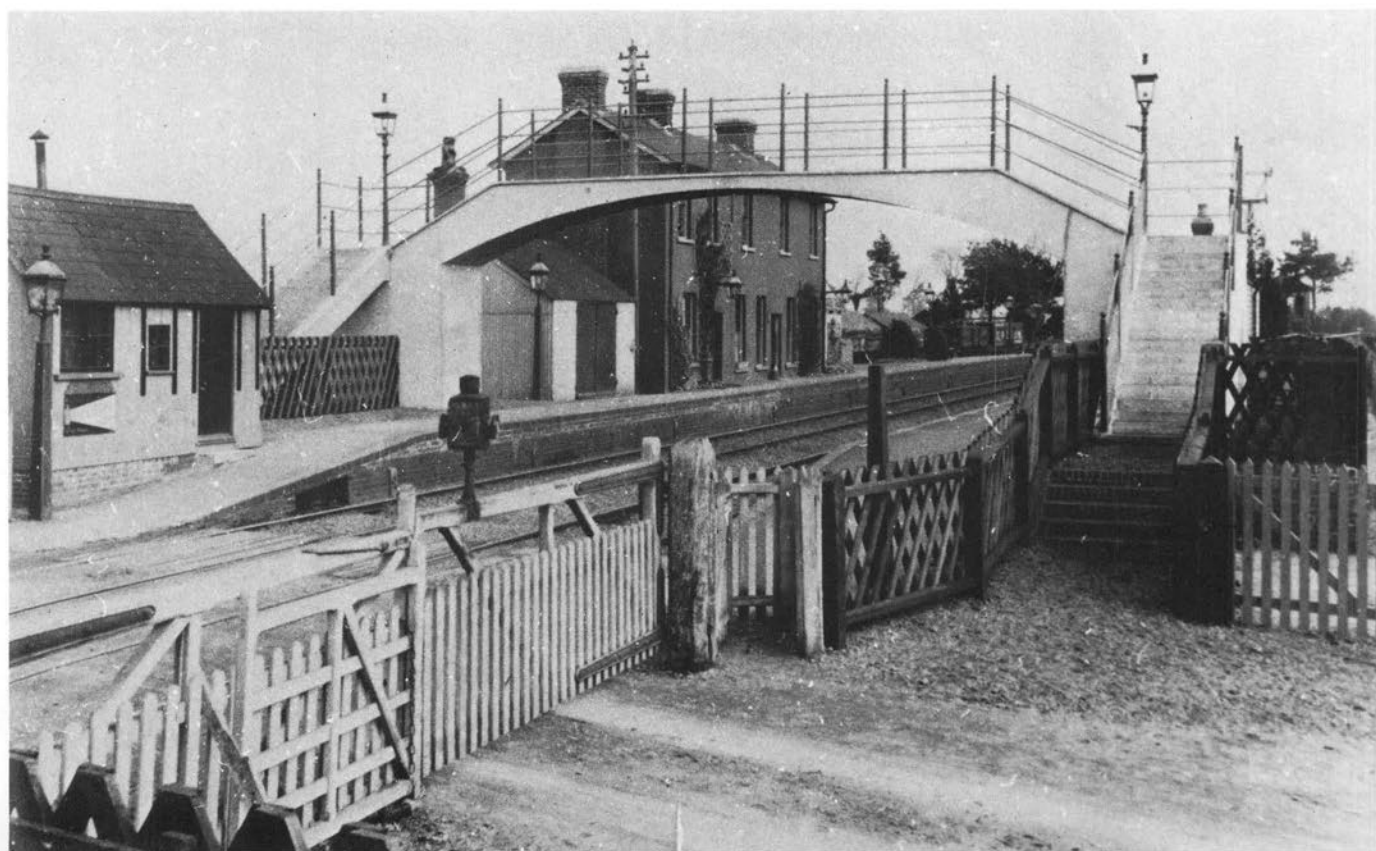
Author's collection





Above: A superb early view of the steel footbridge at Downton on the line from Alderbury Junction to West Moors looking towards Salisbury. A number of items are worthy of mention in the photograph, not least of which are the slotted post signal and ballast covering of the sleepers. The latter was a standard practice on many railways and was intended to serve a twofold use — to make it easier for horses involved in shunting to walk between the tracks, and also to ensure the permanent way stayed where it was intended. The engineers of the period doubted that the track would remain in place of its own accord. When it was realised that the covering of sleepers with ballast encouraged them to rot undetected, the Company reverted to exposing them. The design of the footbridge did not follow standard L & SWR practice and may well have been a stage which eventually led to the evolution of a concrete variant.

Author's collection





Engineering Achievements

Locomotive and Carriage Works

The L & SWR established their first workshops on a site alongside the original Nine Elms terminus in 1839. These were almost totally destroyed by fire two years later but were re-built by Gooch who no doubt learnt from the earlier experience and fitted the new premises with their own automatic sprinkler system. Fortunately it never needed to be used.

The first engine was erected in the Nine Elms workshop in 1843, and for the next few years the majority of locomotives, carriages and wagons required by the Company were built there, although with the development of the railway system, the constraints of the site rapidly became more apparent. In 1861 a move was made to a new site on the opposite side of the line. For the period the new Nine Elms works was both modern and well equipped, with separate boiler, paint and erecting shops, the latter able to accommodate upwards of 80 engines at a time. To move engine parts around the erecting shop, two overhead cranes

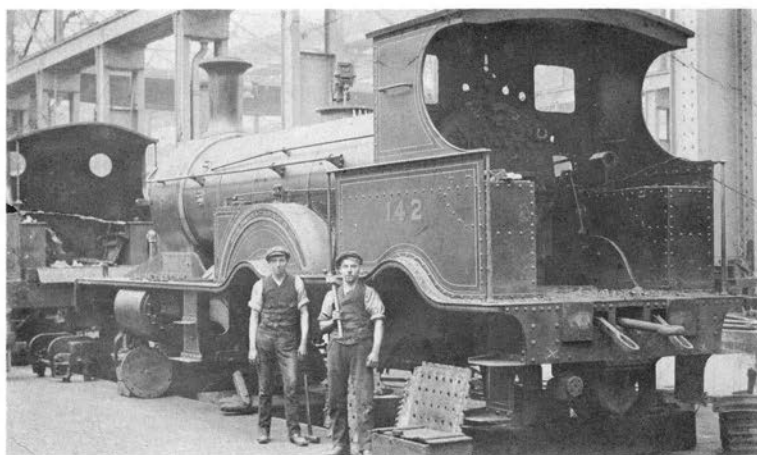
were provided, each under the control of just one man. The paint shop was heated by steam enabling a constant temperature to be maintained during the winter months. The whole site occupied some 23 acres of land.

The rebuilt works continued in much the same role as its predecessor and in its peak year of 1905 was reported to have dealt with 450 locomotive repairs as well as the construction of 22 new engines and 8 railcars. This was accomplished with a total workforce of 2,438 men and boys.

Even these new works eventually outgrew the site at Nine Elms, and despite the efforts of the various locomotive engineers, it became unable to supply the needs of the Company. Compared too with the various workshops of some other railway companies, this was a small factory. The obvious solution was expansion, but this was impossible on the restricted site which by now was totally hemmed in on three sides by residen-

Workmen inside the original Nine Elms loco works shortly before its closure. Conditions were very noisy for the workforce with the sledge hammer a well used tool.

Author's collection



Opposite: One of the first concrete footbridges erected by the L & SWR, at the remote location of West Moors in Dorset. The Railway possibly wished to try out the design before going into more widespread production, although it was evidently successful as concrete was later used at a variety of L & SWR and SR locations. The standard design of footbridge which later evolved, however, was somewhat different to that shown here. The Railway's concrete works was established at Exmouth Junction (Exeter) in 1913 and by the advent of the Grouping was able to produce a variety of items from small fixtures such as fence and mileposts to the parts for complete station platforms, buildings and even locomotive depots. The sheds at Okehampton, Feltham and Norwood Junction were built in this way primarily from parts supplied.

Author's collection



What was previously a green field site at Eastleigh and the location chosen for the new workshops of the Company. On the left are the carriage and wagon shops whilst in the background is the locomotive works, on the opposite side of the line to Portsmouth.

Lens of Sutton

tial and other development. The fourth side bounded the main line itself. In view of the restrictions of Nine Elms, the Board took the decision to separate the carriage and wagon workshops and move these to a new location. Several options were considered including Woking, Basingstoke, Salisbury, Winchester, Bishopstoke and curiously Bishops Waltham. It was finally Bishopstoke (later Eastleigh) that was chosen and the C & W department moved into their spacious new premises in 1891.

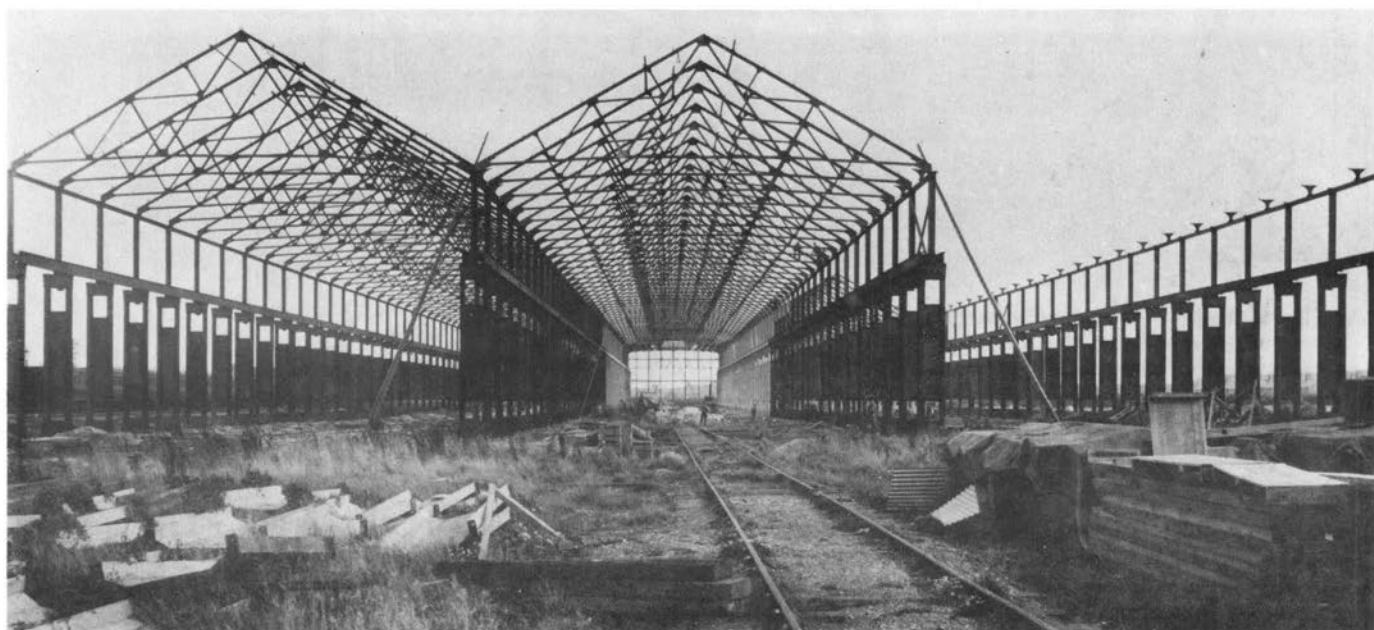
This in turn allowed extra space for the locomotive works at Nine Elms but the separation of the locomotive and carriage and wagon departments was inconvenient. Space at Nine Elms soon became inadequate again, and so, under the direction of Drummond, the locomotive department followed to Eastleigh in 1909. A total of 817 locomotives and 17 railcars had been built at Nine Elms over a 66 year period.

At Eastleigh the new locomotive works occupied an

excellent site in the angle formed by the Southampton and Gosport lines and directly adjacent to the new running shed which had been opened to replace Northam in 1903. In 1910 the new facilities were described by the Chairman, Sir Charles Scotter:

"The locomotive works at Nine Elms are now closed and the men and machinery are removed to Eastleigh. The works are designed to reduce to the minimum the handling of material, and the process of manufacture and the machinery are the finest that can be procured for our requirements. This transfer has been accomplished without an employee of the department being one hour out of work or the output of the works interfered with. I have no hesitation in saying that the company possesses the most complete and up-to-date works owned by any railway company."

How well equipped the works were was revealed only a few years later, when, during the period 1914-1918 it supplied about 250,000 separate items for



Construction of the new buildings for the locomotive shops at Eastleigh, steel framed and to which a brick skin was later added.

Author's collection



Separating the locomotive works from the running sheds at Eastleigh is Campbell Road. The houses were part of the accommodation built for the locomotive department workforce. For their time, they were both modern and well equipped, although only an outside 'privy' was provided. The railway in the centre of what is now the roadway was a temporary affair and used only to bring in materials for construction. Interestingly, old rail is also used for the pavement edging. Local residents spoke of the area as 'Spike Island', an oblique reference to the vast amount of pointed railings surrounding the various railway premises.

Author's collection

military use and continued full output from the adjacent carriage works as well as supplying and maintaining locomotives and rolling stock for its own purposes.

At the same time as the move of the various workshops the town of Eastleigh underwent a dramatic transformation because of the need to provide accommodation for the men employed by the railway. Row upon row of neat terraced houses were built, most around a 'grid-iron' system of roads. Some were built by private contractors specifically for the L & SWR and many were built speculatively.

Locomotive Sheds

The development and use of the steam engine required stabling points or sheds for servicing the locomotives and these were found all over the system. Probably the first to be built by the L & SWR were at Nine Elms and Southampton, whilst later on, as traffic increased and new lines opened, new sheds were opened or existing ones enlarged. Northam shed itself

built to replace the first shed at Southampton, was closed in 1903 when Eastleigh Works was opened together with a new five road shed south of the new works.

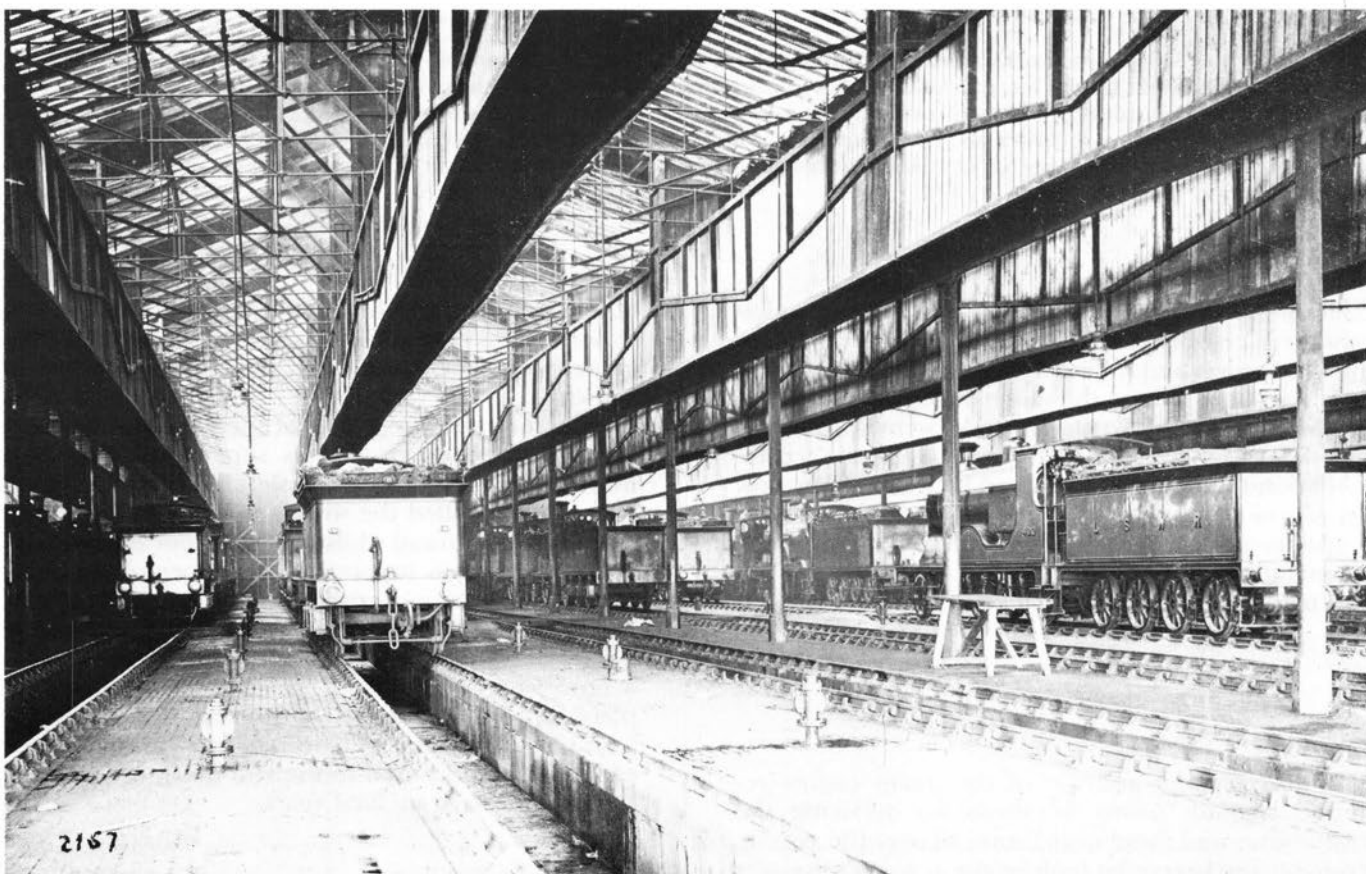
Operating requirements dictated that some of the sheds became major depots supervising the more minor outposts. For example, Exmouth Junction (Exeter) controlled the workings of the sub sheds in Devon and Cornwall whilst the big depot at Nine Elms serving Waterloo supervised a number of the smaller South Western sheds in the London area.

Besides the engine crews, the major depots also had a staff of fitters and cleaners, the latter employed at a time when labour was both relatively cheap and plentiful. Unfortunately, by present day standards, working conditions were often very primitive and eventually contributed to the run-down condition of steam traction in its final years.



Locomotive facilities at Barnstaple Junction around 1921.

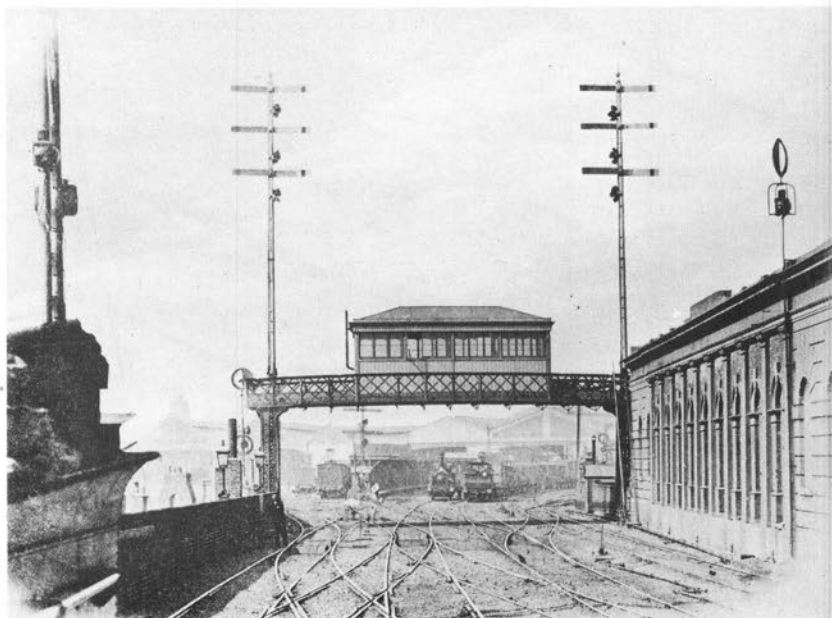
British Railways



Following closure of Nine Elms works, the opportunity was taken to expand the locomotive sheds and this photograph shows the interior of the rebuilt shed. The view is probably taken around 1912, and the overall cleanliness is particularly obvious.

A. Molyneux collection

The original Waterloo 'A' signal box around 1870 and before the widening of the approach lines. Examples of both the 'half-moon' as well as the more modern semaphore signals can be seen. *British Railways*



Signalling

The regulation of trains on the first sections of the original L & S Railway was carried out by nothing more than a man with a flag. The idea of fixed signals to control the movement of trains was then very much in the future. However, it was not long before train speeds and frequencies increased so as to make the old system inadequate.

Fixed signals were placed at the entrance to each station and under the control of a policeman. Points too could be controlled from the same location although only when they were reasonably close by. In this way a train could at least be prevented from entering a station if it was already occupied — that is, providing the driver on seeing the signal at danger could stop in time with the very poor brakes of the period. Departures though were still under the direct control of the guard without the indication given by a fixed signal. Despite the new system, there were still a number of problems. What if two trains were following behind each other, what if the section ahead of the station was in fact blocked, and perhaps most sinister of all what if a train failed mid way between stations?

The gradual introduction of the telegraph system went some way to resolve these difficulties but it was not until a number of accidents countrywide that the Board of Trade took steps to enforce the requirements of block working. This meant the line was divided up into various block sections into which no train could

enter unless the previous train had cleared it. Perhaps the most surprising thing of all is how few accidents there actually were, especially when considering the upsurge in traffic in the years 1840 to 1860.

From about 1860 onwards the first semaphore signals appeared. Those at Waterloo Station were controlled from the famous Waterloo 'A' signal box, itself one of the earliest signal-boxes on the L & SWR. The South Western Directors were not completely happy about the introduction of block working, commenting that such safeguards may make the railwaymen themselves less vigilant. However, a rear end collision at Egham in 1864 only served to emphasise that additional safeguards were needed to overcome the inadequacies of the existing signalling equipment. Unfortunately it was not until after the terrible single line smash at Wellow in 1876 on the Somerset & Dorset line, which was jointly operated by the L & SWR and the Midland Railway, that satisfactory safeguards were built into the working of single lines.

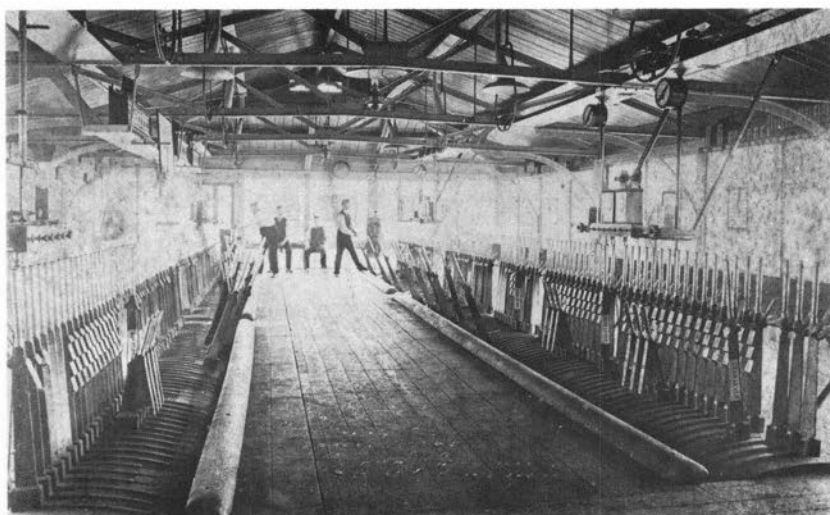
By the 1880's block working with 'Preece's' instruments was the standard on all double lines and with Tyer's 'tablet' for the single line routes. Safe though the Preece instruments undoubtedly were, they limited the number of trains that could be handled and so from about 1885 Sykes 'Lock & Block' system complete with the associated treadles was introduced. At first this was installed solely around the congested Waterloo area, but it was eventually extended to al-

Overleaf: The standard express passenger coaching stock of the Company in the last years of the 19th century. This is a Southampton express awaiting departure from what was then Waterloo No. 1 Main Line platform in 1897. The vehicles themselves are probably 48' long compartment stock and carry destination boards. Apart from the vehicles, the scene itself is well worthy of close examination — the various notices, gas lamps, the general neat and tidy station and above all the people, all so much a part of the late Victorian railway era. It is believed that the carriages were in standard salmon pink and brown livery (officially orange and chocolate) with white lead roofs which soon discoloured to grey in service. In addition it was the practice in the 19th century to paint the brake ends of vehicles vermillion red. This was intended to be an additional safety precaution at the rear of each train.

Reg Randell collection







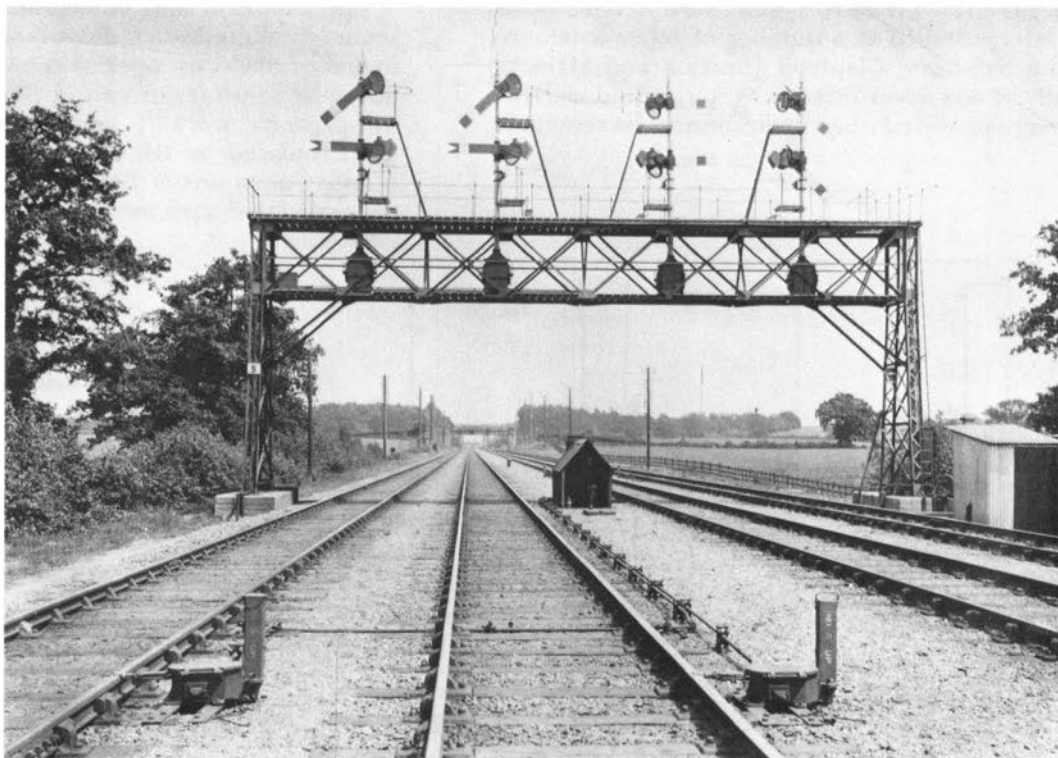
Reproduced from a publicity photograph of the signalling company Stevens & Sons, this is the interior of the rebuilt Waterloo 'A' box in 1892, which contained 292 levers and was split into two frames for purely space reasons. A number of these levers were 'geared' and able to operate more than one function, and some of them can be seen in their mid-point positions within the frame. Of note also is the lack of block and other instruments, although on the extreme left are a number of indicators to inform the signalman when a train was ready to leave. It may well have been that the frame on the left was for departures and that on the right for arrivals.

Author's collection



A delightful study in concentration from one of the signalmen at Waterloo in 1920. In the background, the number of instruments is in distinct contrast to the previous view.

National Railway Museum



Signalling excellence, a set of low pressure pneumatic arms on the main line east of Basingstoke. Track circuits activated the arms which were automatically returned to danger as soon as a train had passed. At the bottom of each post, the bulbous casing contained the air cylinder itself. The view was probably taken shortly after the system was brought into use and includes the old pattern red distant arms. The posts themselves are of a lattice type and similar to most of the signals used on the Company's lines.

National Railway Museum

most all the main lines. At the same time the old signal box at Waterloo was rebuilt and eventually boasted in excess of 200 mechanical levers with a number 'geared' so that they could activate several functions. This saved the need to install upwards of 400 conventional levers.

Whilst the new signal box at Waterloo was undoubtedly a show piece of Victorian engineering, it rapidly showed up the inadequacies of mechanical control in the busiest areas. Other railways too were finding similar problems and so there was considerable interest in the field of railway operation overseas, particularly in America. Sam Fay of the L & SWR crossed the Atlantic to study the latest developments in signalling and on his return recommended the introduction of the low-pressure pneumatic system for controlling signals and points. This method used a compressed air system to move the equipment and, whilst it was initially more expensive to install, there were considerable advantages in both the saving of space and in the number of levers required in the signal boxes.

A trial installation was approved and subsequently erected at Grateley on the West of England line between Andover and Salisbury. The choice of this location was no doubt made because it was a main-line station and a junction, and yet, in the event of difficulties arising, services could still be operated with the minimum of disruption.

The system began operation in 1901 and was an immediate success. Indeed it would appear that the engineers literally stood around waiting for something to go wrong — it rarely did. It was then only a straightforward decision to extend this type of signal-

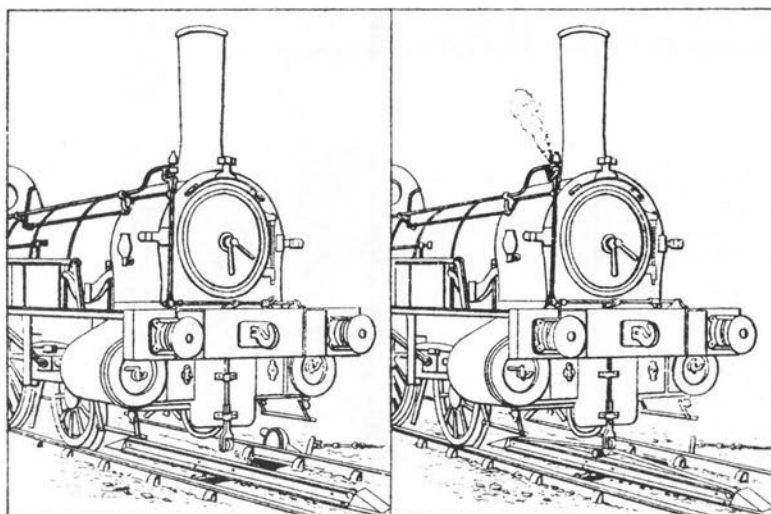
ling to the main line and this was done between Woking and Basingstoke at the same time as the line was quadrupled.

Also associated with the work at Grateley was an experiment of automatic signals eastwards to Andover. This development saw a series of track circuits installed which were used to control the signals themselves and which in turn of course controlled the trains. It was a complete departure from the standard British practice, and before it was approved for installation on a wider scale, the Board of Trade insisted on considerable trials and the keeping of accurate records. Again, failures were few and a little later the same system was installed east of Basingstoke so as to allow for maximum line occupancy on the newly quadrupled line.

The Grateley installation and the associated automatic signals lasted in service only until 1915 when a reversion was made to conventional mechanical means. This was certainly not due to any problem or failure with the installations but simply because the additional cost of maintenance was not considered justified on that particular section of line. Elsewhere,

however, the low-pressure system, or a derivative of it, was later installed at a number of other locations including Salisbury, Clapham Junction and Staines. Ironically, it was never fitted at Waterloo and electric signals were provided when the terminus was rebuilt.

The Clapham and Staines installations were subsequently altered when the volume of traffic increased to make full electric operation more suitable. This was not so at Salisbury or east of Basingstoke, where the low-pressure working and automatic signals lasted until replaced by BR. The last items to go were a number of points at Basingstoke which were finally converted to electric motor operation as late as 1985.



Line Clear.

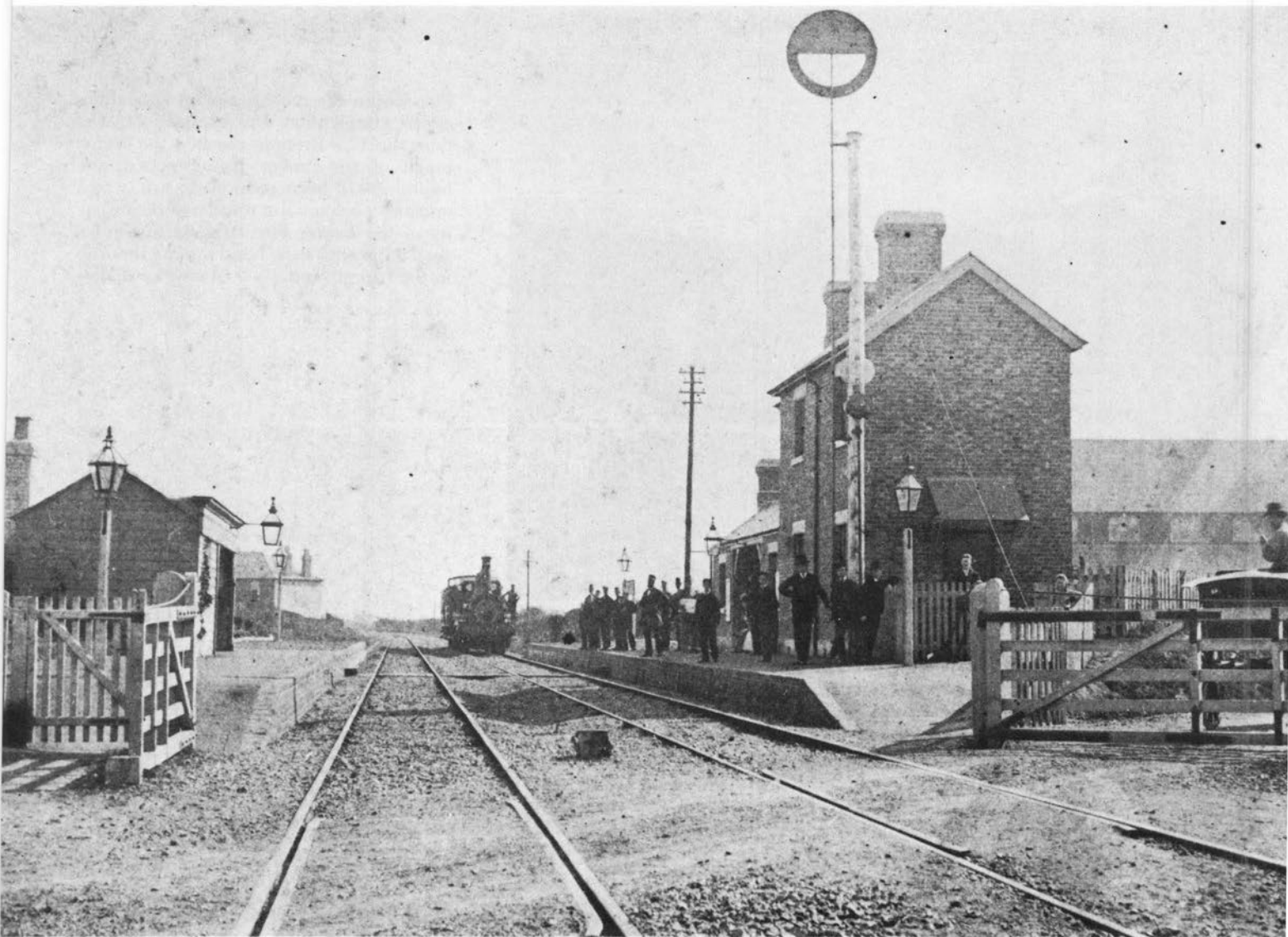
Distant Signal at Danger.

The L & SWR experimented with a system of automatic train control on the main line at Wimbledon sometime between 1889 and 1900. If an engine passed a distant signal at danger, a device was automatically operated which sounded the engine's whistle, thus warning the driver that he must be prepared to stop at the next signal. This was achieved by a ramp fixed between the rails which was only lowered when the signal indication given was clear. The raised ramp struck a shoe on the engine which in turn opened a valve to operate the whistle. The experiment was not continued by the L & SWR, and it was only shortly afterwards that the GWR produced a similar device, but this time operating the brakes, which was developed and used well into BR days. *Author's collection*



Hampton Court signal box, built to the South Western 'centre-pillar' design. There were a considerable number of signal boxes of this type throughout the system, a similar timber variant used where perhaps ground conditions did not allow a brick box.

Author's collection



Fort Brockhurst station c. 1868 with one of the early half moon signals, designed by Mr. Albinus Martin, at the end of the platform. Four indications could be given: aperture on the left — left hand line only clear; aperture on the right — right hand line only clear; aperture at bottom of disc — both lines blocked; and aperture turned edgewise to the line — both lines clear. The view is looking south towards Gosport with the Garrison church in the background.

National Railway Museum

Civil Engineering

Despite the Southern counties of England being thought of by many as flat this is in fact far from correct and there were considerable difficulties facing the Victorian Engineers as they attempted to build the first railways.

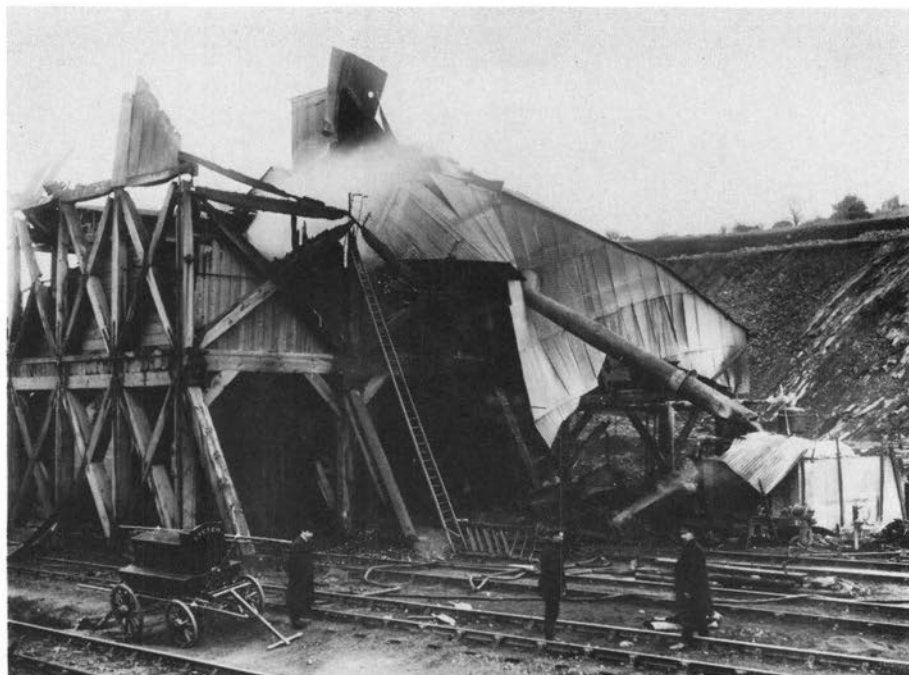
The problems encountered on the original London and Southampton railway between Basingstoke and Winchester have already been briefly recounted, and it took a great many men to manhandle the chalk to form the deep cuttings and high embankments so typical of this particular line.

Prior to work being able to start on a new line, the South Western adopted the practice of inviting tenders from various civil engineering contractors, some of whom had been involved in railway construction

from the earliest times. The firms of Brassey, Firkbank, Pauling & Elliot, Baldry & Yerburch, Lovatt, Aird, Mackay, Mowlem & Burt and Perry were all employed by the L & SWR to construct various lines on the Company's system.

The Railway Company did undertake a number of works itself, including regular maintenance, and occasionally had to take over work from a contractor who may have failed in completing his contract.

As well as the building and later widenings of the railways themselves, there are four particular engineering features worthy of individual mention: Meldon quarry, Waterloo Station, Feltham marshalling yard, and the dock complex at Southampton.



Fire within the crushing plant at Meldon on 1st March 1908. Unfortunately, by the time the Fire Brigade reached the scene, much of the timber framework to the building had been reduced to ash, whilst one may perhaps also wonder at the capacity of the Exeter Fire Brigade to control such a fire with their hand operated pump in the foreground. *Author's collection*

Meldon Quarry

A giant ballast quarry was established by the South Western at Meldon, just west of Okehampton. Okehampton itself was situated on the South Western's main line from Exeter to Plymouth and was also a junction for the route to Bude and Padstow. Just south of the station the line passed through a granite cutting typical of this part of Dartmoor. Legend has it that during the mid 1890s, one of the Railway's District Engineers noticed the rock gathered from the side of this cutting made superb ballast which led to

a vast improvement in track wear as well as the quality of riding in his area. He brought this to the attention of the Chief Engineer at Waterloo with the result that Meldon rock was used extensively over the system and replaced the old shingle ballast. So successful was the Meldon product that the L & SWR eventually acquired the rights to quarry over a large area. Eighty years later Meldon continues to serve the nationalised railway network in a similar role.



Meldon viaduct on the main line to Plymouth, just south of Okehampton. This apparently spindly structure was constructed of cast iron and steel on huge concrete bases with a maximum height of 120' above the valley floor. Perhaps bearing in mind its location, it is a little surprising a stone structure was not built instead. *Author's collection*



Waterloo Station

Shortly after the quarries of Meldon had begun to be exploited the Company were involved in the first stages of major work at the opposite end of the system — the rebuilding of Waterloo Station. Parliamentary approval to the scheme was granted in 1899-1900.

Rebuilding of the London Terminus was needed simply because the success of the railway had resulted in the original facilities being expanded piecemeal until they presented a hotch-potch of buildings and platforms despised by passengers and operators alike. Whilst the original facilities at Waterloo are now beyond the recollection of anyone still living, a fair comparison may be drawn in the Euston Station that existed until just 25 years ago, and typified by a comment made over a hundred years ago when an irate operating man recounted, "... It seems both Waterloo and Euston share the same problem — we lose passengers and trains sometimes ...".

Waterloo Station opened in 1848, when the line was extended from Nine Elms, and it contained just four platform lines. In 1860 four more were added primarily for the Windsor traffic. This was followed in 1864 with a connection to the South Eastern Railway and then a further two platforms in 1878. The final development of the original station came in 1884/5 with the construction of six extra platform lines. A Necropolis station was also provided just outside the terminus from which a regular train service to the cemetery at Brookwood was run by the L & SWR for both coffins and mourners.

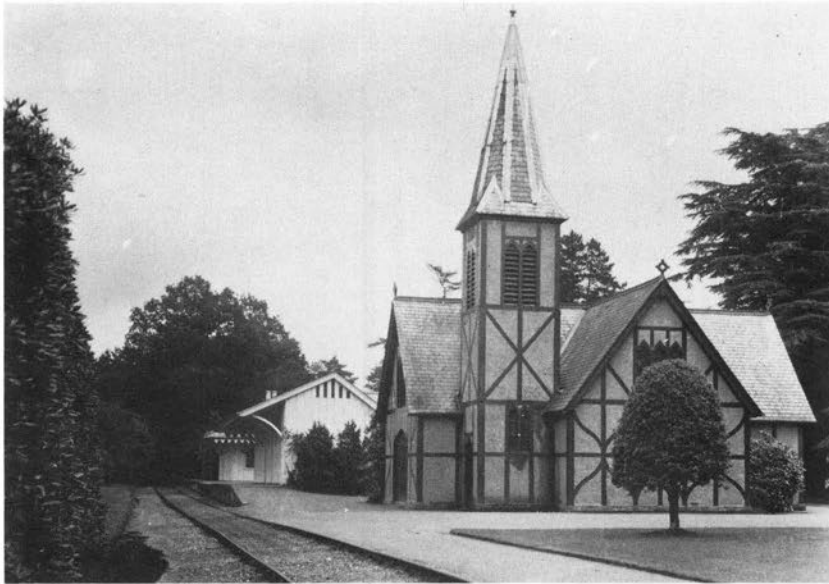
Prior to the rebuilding of the terminus, the widen-

Waterloo in the process of reconstruction and rebuilding, although at this particular stage, it would appear the work has been temporarily suspended. Notice also the third 'live' rail and the new roof stretching across the platforms. *Author's collection*

ing of the lines leading to the station had been started in 1890, the section from Waterloo to just beyond Vauxhall costing no less than £600,000 to construct.

Rebuilding commenced around 1903 and involved a complete alteration of everything that had gone before. Beginning on the east side and at what is now Platform 1, the old roof was torn down and replaced by a high girder canopy giving the whole site a light and airy appearance. Eventually this covering was extended over the whole of the station area which was enlarged to provide 21 platforms. At the approximate mid point was a cab road and also three short loading docks. Engine facilities and a number of sidings were also provided. The design and layout for the rebuilt station was evidently arrived at following the visit Fay and the Company's engineer, Jacomb-Hood had made to America a few years earlier.

The whole work was carried out in conjunction with re-signalling the layout and its approaches, and during construction great care was taken to minimise disruption to traffic. The scheme was not finally completed until 1922, partly due to the necessary curtailment of building both during and for a while after the first World War. Today the site remains basically unaltered and it still commands respect as the largest of the London Termini.

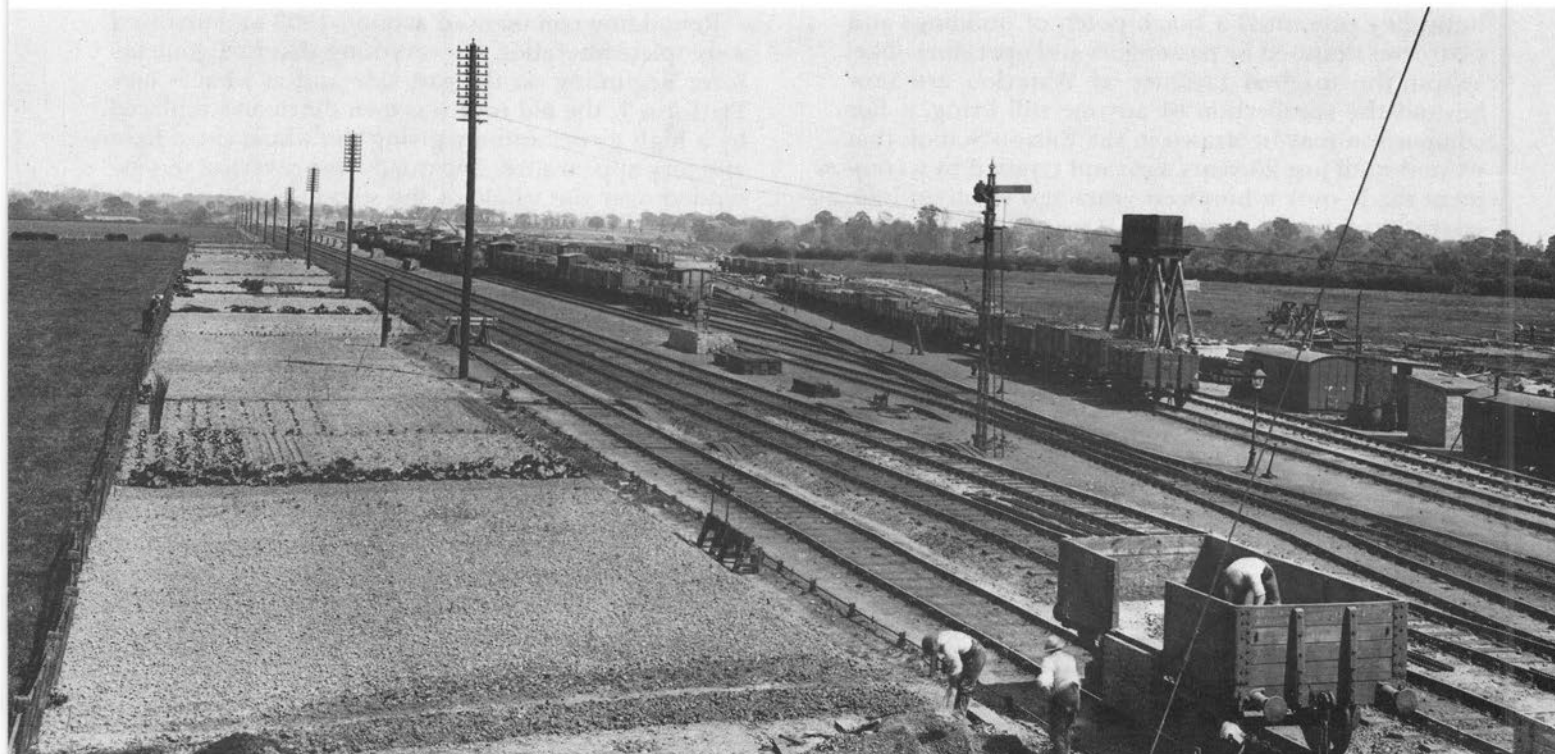


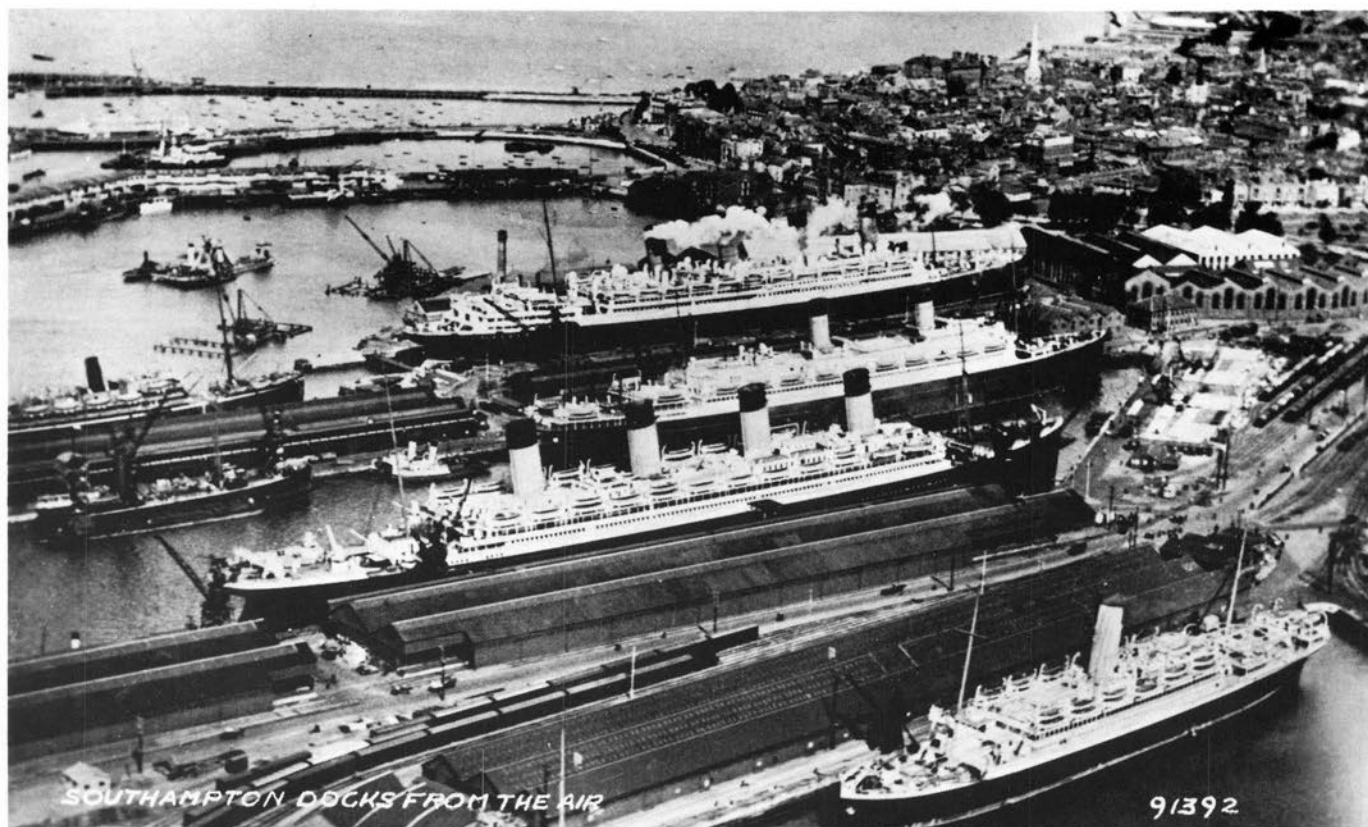
Amongst the lesser known activities of the L & SWR was its operation of a necropolis service from a separate terminus at Waterloo to the cemetery at Brookwood where a long siding led back into the actual burial ground complete with two 'stations'. Trains for the cemetery would consist of hearse vans accompanied by carriages for the mourners and sometimes with individual trains clearly marked according to the different religious denominations. This is the South Station on the railway with the Church of England Chapel in the foreground.
Lens of Sutton

In the 1930's, proposals were put forward for an airport to serve central London positioned directly on top of the canopy, suitably strengthened of course. This was at a time when the Southern Railway was deeply involved in the embryo *Railway Air Services* venture. Such a scheme was really little more than a feasi-

bility study and was never implemented. It will be interesting to see the changes that might be needed with the building of the Channel Tunnel, as it is proposed that Waterloo Station becomes the London terminus of the Inter-continental trains.

Part of the new yard at Feltham before the complete facilities were available for use. The yard eventually comprised up and down reception roads, up and down marshalling sidings, transfer goods shed, cattle pens, engine shed and wagon repair shops. The whole occupied an area almost 2½ miles in length but from this angle, the expanse of sidings is not completely visible. The distinctive tower of the locomotive depot has still to be added. The view is towards Richmond with a number of what are probably railwaymen's allotments on the opposite side. Besides being a modern yard with regard to its operational layout, Feltham was controlled entirely by electric signalling.
Author's collection





An aerial view of Southampton 'Eastern' docks in the early 1930s, taken from a contemporary Valentine's post-card. The amount of activity is typical for the period and of course long before the era of air travel. Such was the trade at Southampton that the Southern Railway commenced an expansion of the dock facilities westwards which involved a considerable amount of new work on reclaiming land from the sea. The result was a new 'Western' docks complex of vast size which is still in use today for container and other ocean going traffic. In this picture, there are three P. & O. liners, including the *Aquitania* in the distance and the *Olympic* with its four funnels. The boat in the foreground is believed to be the Orient Line ship *Orcades*.

John Fairman collection

Feltham marshalling yard

Prior to the construction of a new marshalling yard in 1919 at Feltham on the line to Windsor and Reading, the L & SWR had possessed no major goods yard of its own in the London area except Nine Elms, and traffic destined for the South Western had to be marshalled at Willesden on the London & North Western Railway. For this dubious privilege, dues had to be paid to the rival Railway Company.

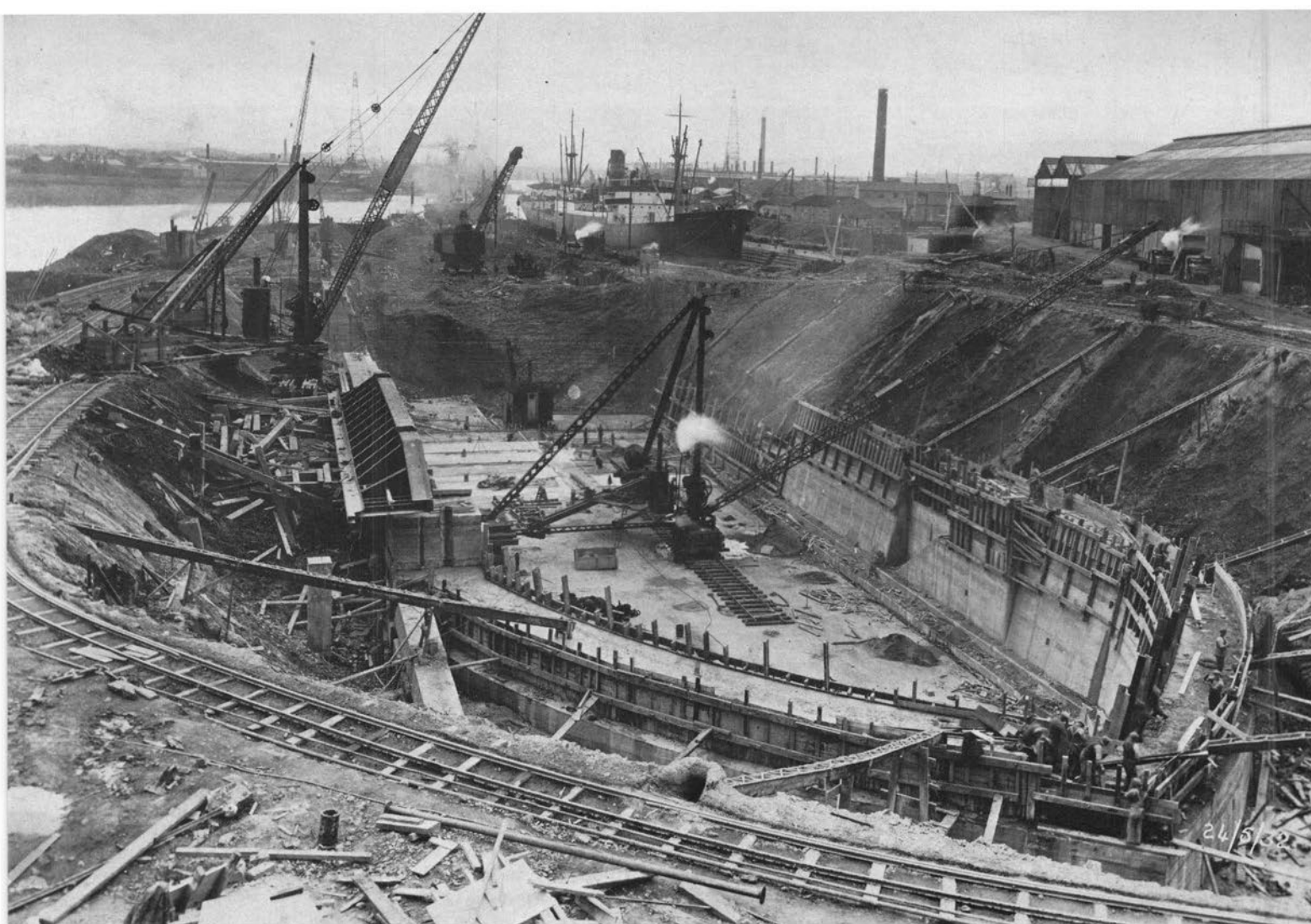
Feltham yard was laid out on the 'hump' principle and included 47 separate sidings of which 14 were 'reception roads'. A new five-road engine shed and one road repair shop were also built on the same site although these were not brought into use until about 1922/3, three years after the yard itself. The shed had an allocation of about 70 engines and replaced a smaller depot at nearby Strawberry Hill.

The docks at Southampton

Great though they undoubtedly were, the works already mentioned are small compared with the enterprise of the South Western and its Docks. Without doubt the largest and best known of these was at Southampton where the road leading to the 'New Docks' was appropriately named 'Herbert Walker Avenue' after the General Manager of the Company. The L & SWR had first entered the shipping business in the 1840s and by the end of the decade was operating its own steamers between Southampton, the Channel Islands and Normandy.

The shipping interests of the South Western were given a dramatic boost under the General Managership of Sir Charles Scotter from 1885 onwards. Scotter, from his previous experiences at Hull and Grimsby, was quickly able to appreciate the potential Southampton offered. The docks at that time were under the control of the Southampton Dock Company who were in a precarious financial state.

The lack of investment by the Dock company had led to important revenue being lost from Southampton. The P. & O. company had already moved from Southampton in consequence of inadequate



Construction of the King George V dry dock at Southampton. This was in the new docks complex built by the Railway on reclaimed land west of the original facilities, and needed simply because of the success the Railway had achieved with its shipping services. Besides its operation at Southampton and Plymouth, the L & SWR operated its own ferry services and was also party to the running of a number of other docks and harbours, including those at Portsmouth, Stokes Bay, Lymington, Hamworthy and Poole.

Author's collection

dredging and were now berthing at Plymouth with their passengers travelling by the Great Western Railway.

Besides recognising this as an important loss of traffic to his own line, Scotter was acutely aware of the significance of the recent opening of the Suez Canal and on his recommendation, the Dock Company was purchased outright by the railway in 1892.

The transformation was dramatic. Overdue dredging was put in hand as well as other arrears of maintenance and the facilities were greatly improved. The investment was well repaid, as within a few years, many of the world's great shipping lines had returned to Southampton with obvious benefits to the L & SWR receipts.

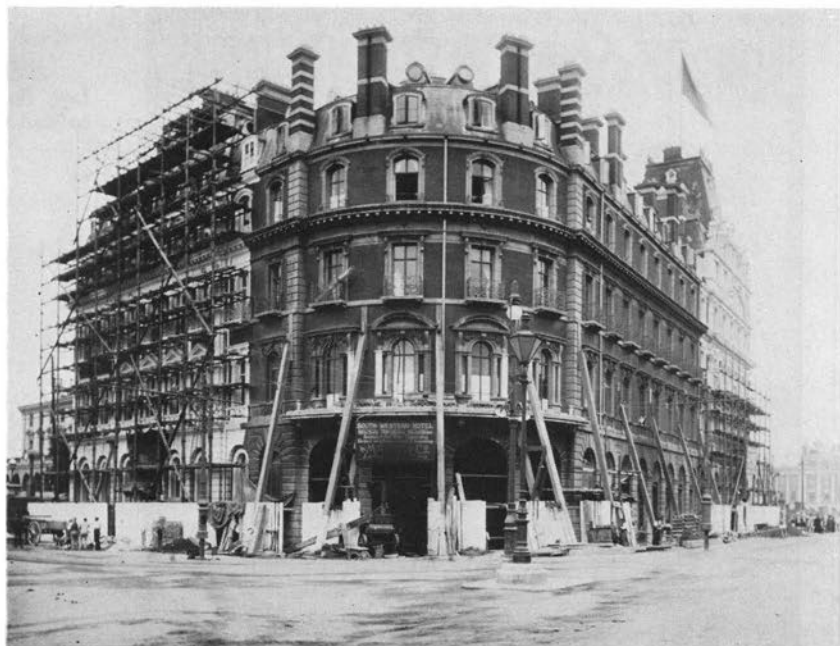
The 'Prince of Wales Dock' was opened in 1895 and was followed by the even larger 'Trafalgar Dock' of 1907. The latter was a graving dock no less than 875' long and 125' wide at coping level, and was extended

later to accommodate such ships as the ill fated *Titanic* of the White Star line and *Mauvetania* and *Lusitania*, both termed 'flyers' and operated by the Cunard Company. Both the Cunard vessels were then the joint holders of the Blue Riband of speed for the Atlantic crossing.

The South Western also invested in ships and associated services and at its peak was operating services from Southampton to France and Brittany, Southampton to the Channel Islands and Weymouth to the Channel Islands, the latter jointly with the Great Western. In addition there were sailings from Portsmouth, Stokes Bay, Southampton and Lymington to the Isle of Wight as well as a multitude of tugs and tenders for use at Southampton and Plymouth.

Most of these services continued under Southern Railway ownership and into BR days with a number coming under the flag of 'Sealink'.

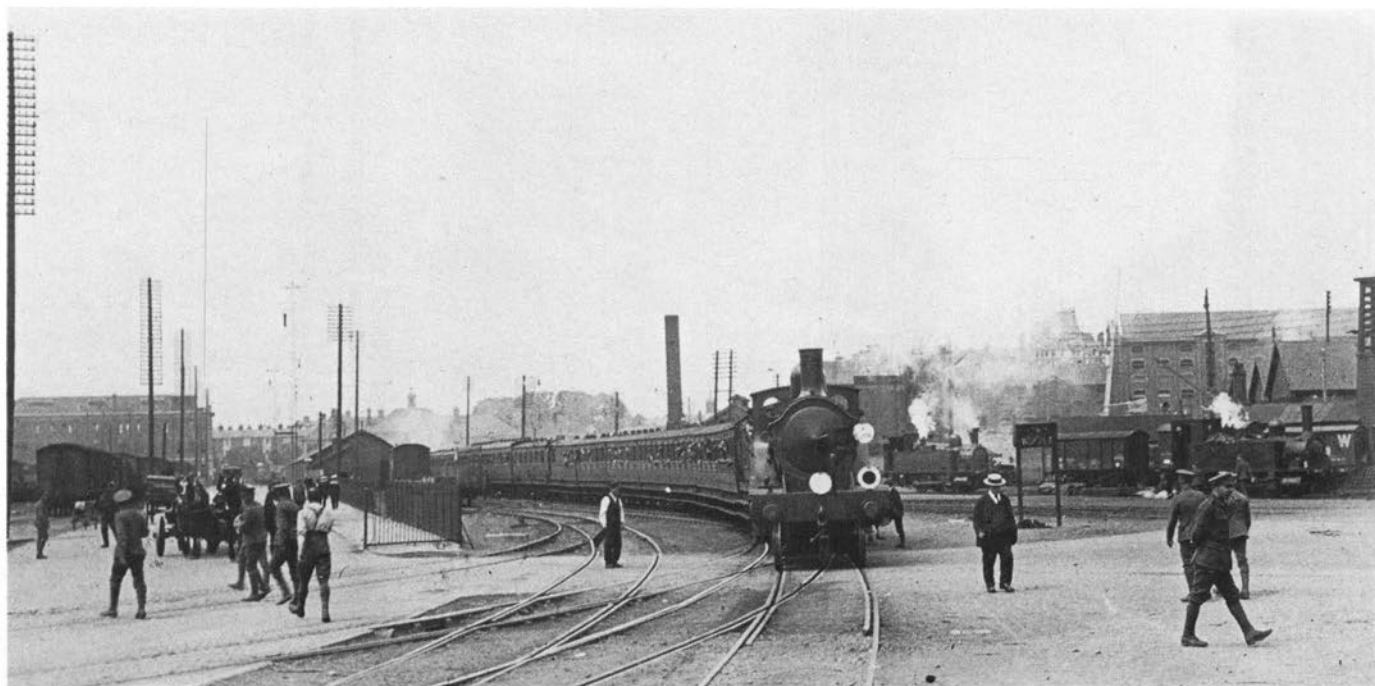
In an attempt to serve the prosperous trans-atlantic passengers, the Railway built the appropriately named South Western Hotel alongside Southampton Terminus station and directly by the entrance to the Docks. So successful was the hotel, that it was later extended and it is this work that is going on in the photograph. In its new guise it possessed various lounges, smoking and drawing rooms, a billiard room and over 100 bedrooms. Much of the interior decor was finished in marble with the high ceilings serving to emphasise the prestige of the building. It was designed to attract the wealthy. The building is said to possess a sad past with a rumour that the body of a maid lies concealed within the walls, the victim of a clandestine love affair. Despite the success of the Southampton Hotel, the railway operated only one other similar venture, at Exeter. *Author's collection*

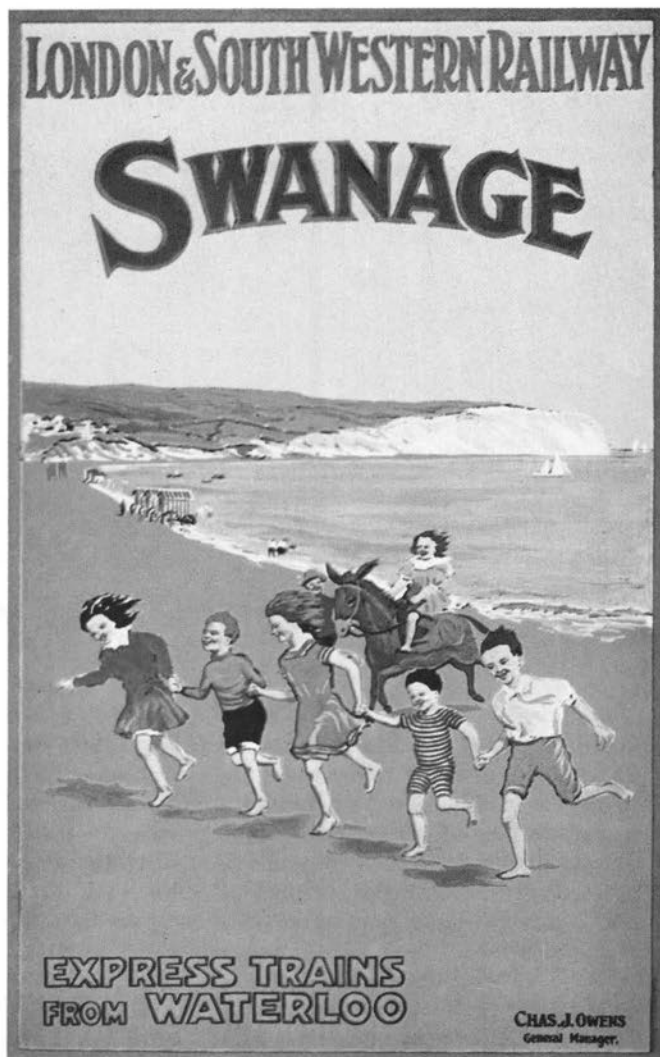


From alongside the original Southampton Terminus station, rail access was provided to the docks each with their network of lines serving the wharfs, basins and storage sheds. Passenger traffic to and from the liners was provided for and facilities for handling an ever growing number of visitors were available, including the sumptuous 'South Western Hotel' which was alongside the Terminus Station. The dock

facilities proved invaluable only a few years later between 1914 and 1918 during which time the docks were completely closed to civilian traffic and handled vast quantities of military stores and personnel. Later, during Southern Railway days, the dock facilities again proved to be insufficient for the traffic it was handling, and a new complex was built to the west on land reclaimed from the sea.

A boat train just entered the docks from Southampton Terminus during the first World War, with an Adams' design engine at the head. The coaches are full of servicemen on active service. The train is probably on its way to berth 38. The latter day Ocean Liner Terminal is situated behind the photographer to the left. *Imperial War Museum*





Left: Publicity poster to encourage travellers on the L & SWR to visit the South Coast.

Below: The operation of holiday traffic was of prime importance to the South Western, hence the prolific number of small branch lines serving many resorts on the coast from Hampshire westwards. One of the best known branches was from Wareham to Swanage on which the basic service was supplemented in the summer months by complete through trains from Waterloo, such was the popularity of the resort. At other times, the service would consist of a tank engine and perhaps three coaches and a van. 'M7' 0-4-4T is seen here leaving the terminus for Wareham on 22nd September 1924.

Lens of Sutton





Spirit of the South Western

Passenger Services

In 1839, not long after the first section of line had been opened, the Directors of the Company received a memorial from the clergy of the diocese of Winchester. This complained that by running trains on the Sabbath, "... a systematic desecration of the Lord's Day is openly sanctioned and which is considered to corrupt public morals". Perhaps unfortunately for Winchester no action was taken to cease Sunday running as an Act of Parliament had already compelled the Company to run trains on every day of the week for the benefit of the Royal Mail. Elsewhere the Church wielded rather more influence, for in Scotland even as late as the turn of the century there were few Sunday trains and one railway company steadfastly refused to run Sunday trains at all on the line between Edinburgh and Glasgow.

From the early days of the Railway, trains ran to a regular timetable, and by 1841 there were in the order



Above: Waterloo, 1900.

Author's collection



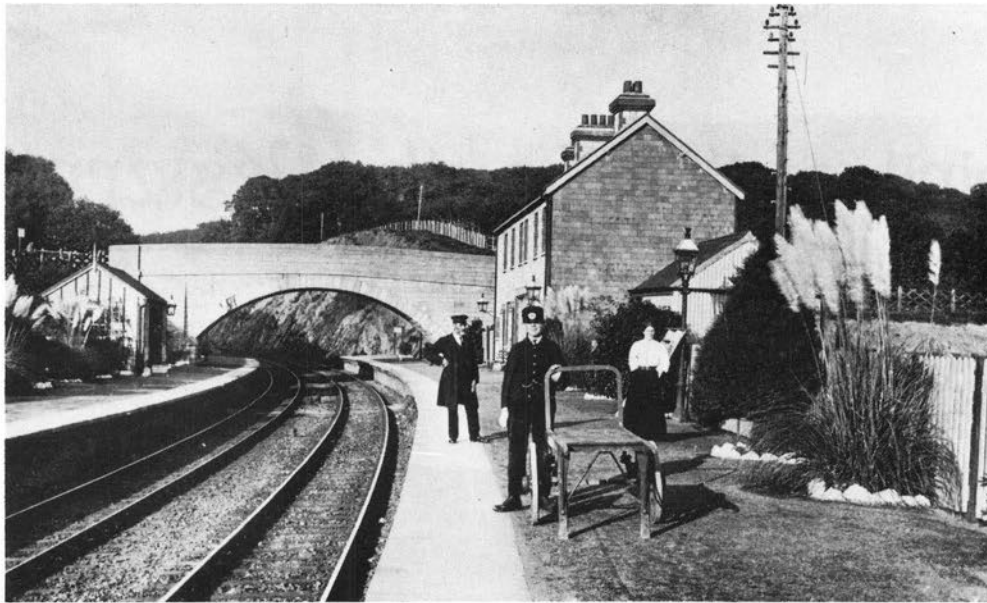
Left: Commuters at Waterloo in steam days. Some of the 35 million passengers carried annually by the South Western in the days prior to electrification of the suburban services.

Lens of Sutton

of nine daily services from Nine Elms to Southampton with an average journey time of three hours. Whilst today this may sound more akin to a snail's pace it was still a vast improvement on the whole day that would be taken up for a similar journey by stage coach. As both speeds and frequency of trains increased, the Company adopted a policy whereby the faster trains commanded a higher fare, well beyond the reach of all but the privileged few.

By 1859 the best timing over the same route had come down to 2 hrs. 20 min., and over the slightly longer distance from the new terminus at Waterloo Bridge (sic). Unfortunately there was only one train a day that managed the journey in this time and it only conveyed 1st and 2nd class passengers.

Matters really improved from about 1880 onwards, so that by the turn of the century there were a number of 'fast' trains, each catering for all types of clientele.



The delightfully rural setting of Tamerton Foliot station just north of Plymouth on the South Western main line. The station was opened in January 1898 and was on the route taken by the Ocean Liner expresses from Plymouth to Waterloo. It was served by stopping passenger trains from Exeter or Okehampton. *Lens of Sutton*

By this time too, the levels of comfort for all classes of passenger had been greatly improved.

Unfortunately, away from the main line, the branch and secondary services were not always something to be proud of. This was not just a peculiarity of the South Western however, for nationwide the cascade effect of displaced stock on lesser duties made economic sense. Journey times and schedules were noticeably slow. On the 7½ mile line from Hurstbourne to Fullerton for example, there were just four trains each way Monday to Saturday with the fastest of these being allowed 17 minutes inclusive of two intermediate stops. The slowest service on the line took 24 minutes, an average speed of not quite 19 m.p.h. But at least each provided a connection at the termination of its run, a praiseworthy feature of nearly all passenger services.

Apart from the trains, the railway were able to provide its passengers with a variety of services. Luggage

could be collected and received, baggage insurance arranged, and telephone communication was available with a number of stations — Basingstoke was Tel. No. 1, for those of course fortunate enough to have a telephone! Private horse drawn carriages together with their equine power could be loaded onto special wagons attached to each train. All of these services were given a special entry in the timetable, that concerning the conveyance of horses stating:

"Senders of Horses and Carriages should, to prevent disappointment give as early a notice as possible (not less than twenty-four hours), stating how many Horses and Carriages are required to be sent, and by what train. The Company do not undertake to convey Horses and Carriages unless they are at the Station half-an-hour before the Train by which they are intended to travel is due to start. Horses and Carriages must be fully addressed with a legible label bearing the name and postal address of the Consignee,

Goods facilities put to use at Okehampton and with horses being unloaded. In the background the white splashes on the cattle wagons are caused by the use of a lime wash cleanser. *Lens of Sutton*



whether accompanied or not.

BANK HOLIDAYS. — In consequence of the heavy traffic on Bank Holidays, on Christmas Eve, on the Thursday before Good Friday, and on Saturdays preceeding the Bank Holidays, the Company cannot undertake to convey Horses and Carriages to or from Waterloo Station."

The Company timetable also contained details of the various fare schemes available, and which no doubt gave rise to the same sorts of complaints that are heard nowadays concerning an unnecessarily complex system. By 1914 the following were available:

Through bookings to the continent,
Season Tickets,
1st, 2nd & 3rd class single and return tickets,
Naval & Military Officers tickets,
Cheap Friday to Tuesday tickets to London,
Saturday to Monday tickets,
Market tickets,
Tourist, Week-End and Excursion tickets.

Perhaps complaints of queues at the Booking office are not such a recent phenomenon.

Staff

At the outbreak of the first World War, the L & SWR employed 26,000 staff at a time when manpower was both cheap and plentiful. Such an abundance of labour had existed for a number of years although for some time working conditions had been very poor compared with what is taken for granted today.

Fifty years earlier, for example, the working week was one of seven days. The conditions for a signalman at Godalming in 1864 were perhaps typical of the period. In one particular week this Company servant had worked 16 hours on the Monday, 14 hours each day Tuesday to Saturday and a further 12 hours on Sunday — a total of no less than 98 hours. Neither was this unique to the L & SWR and it was not until after a series of accidents nationwide, caused by no-



Fred Capon on his first day of service for the L & SWR in 1919. Fred began his career as a booking lad at Southampton Town signal box and after several years gaining experience, he became a signalman at Shawford about 1926. He retired from Eastleigh nearly 50 years later as the District Inspector, a well liked and respected man. *Mrs. Capon collection*

Shunting within Southampton (old) docks sometime during the early years of the century. The engine is an 0-4-0 saddle tank 'Clausentum' and named after the old Roman name for Southampton.

Mr. & Mrs. A. Bennett collection





Left: Located primarily on the more rural lines were a number of level crossings operated by a resident crossing keeper. Often this task was performed by a lady whose husband would be a railway employee nearby. This example is Cadhay Crossing near Ottery St. Mary, on the line from Sidmouth Junction to Exmouth via Budleigh Salterton. *Lens of Sutton*

Below: Engine cleaners during the first World War. No. 129 is rather dirty even for the period. *National Railway Museum*

thing more than overtiredness on the part of the workforce, that conditions began to slowly improve.

Tales are told of pointsmen, policemen and even drivers and firemen falling asleep at their posts, although by the 1880s the work of the signalmen was recognised as being more mentally fatiguing than most, and at Waterloo these men were restricted to either an 8 or 9 hour day. Pay varied according to a man's position. A messenger at Waterloo in 1872 received 16/- weekly whilst a senior signalman could earn 35/-. Top of the scale were the Station Agents, (the term 'Agent' preceded that of 'Station Master'), the salary of the Southampton incumbent recorded as a heady £110 p.a. during the same period.

Uniforms were provided from a very early time and made from a corduroy material. A change was made to warmer serge garments from 1871 onwards although the old material was still being issued to certain grades 25 years later. From a brief reference in the Company minute books, an example of the miserly conduct of a certain Director is recorded. He suggested that the discarded uniforms from a number of the senior grades be reconditioned where possible and then re-issued to more lowly servants.

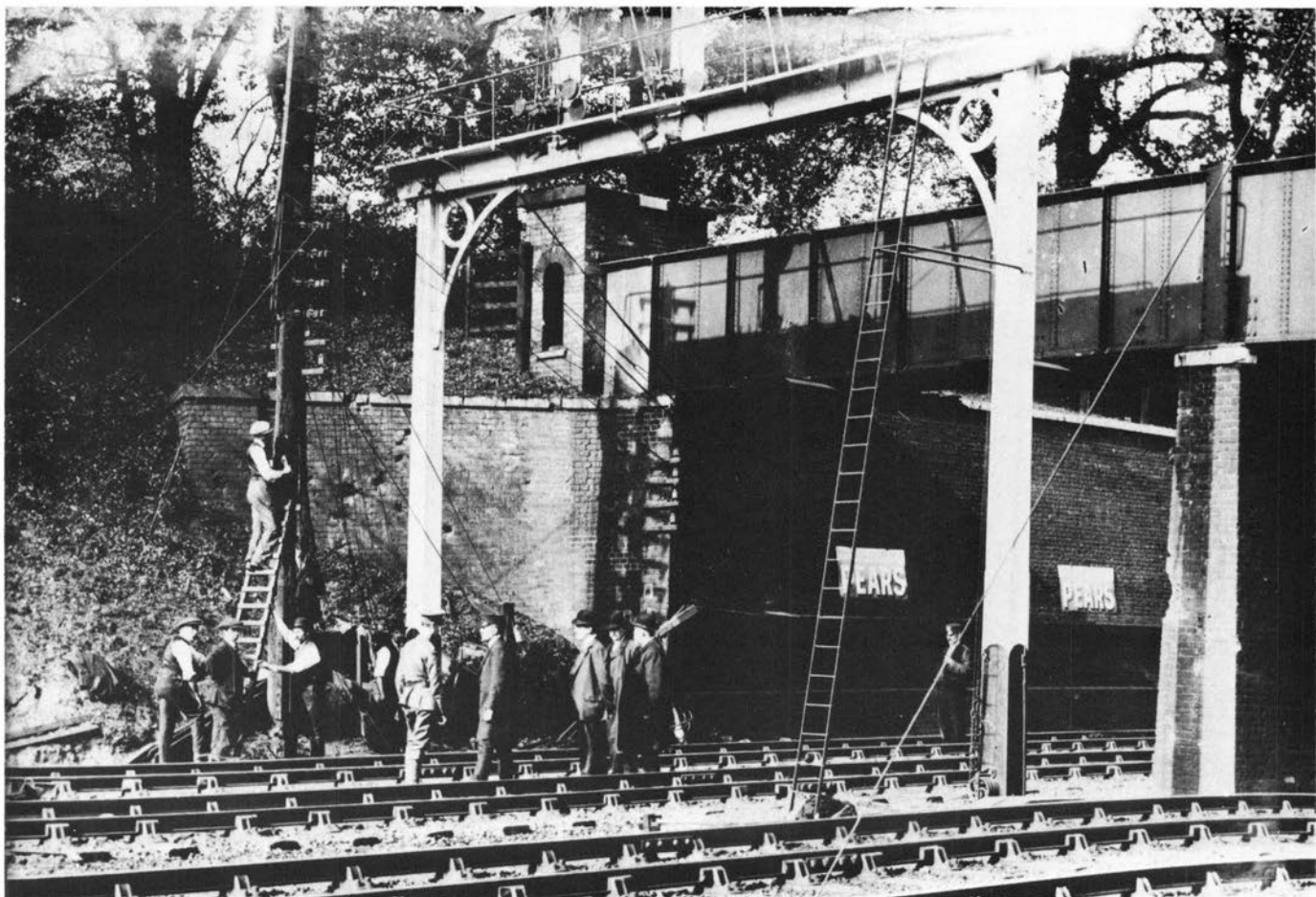
Should a man have a grievance, it would be difficult to get it resolved as trade union representation was either actively discouraged or almost totally forbidden. The Directors sought to explain their position by stating "... all staff have a right of access to the Board at any time." The practicalities of a working man seeking to discuss his problems with the General Manager is best left to the imagination.

Even so the men did have better conditions than many others of the period, for a pension was available to all staff from 1861 onwards, a scheme which was extended from 1892 so that men could retire at 65. In addition there was a widows and orphans fund. In other respects the Company were to the forefront of welfare matters with the establishment of a railway orphanage at Clapham in 1885. Later this moved to



the well known site alongside the main line at Woking. For the benefit of the orphans, the Railway provided a special annual outing to Bournemouth, whilst at principle stations, stuffed dogs were used to assist in raising funds and were a feature until as late as 1967.

Holidays for staff were provided from about 1872, when a loco department foreman became entitled to



Bomb damage from a Zeppelin in 1918 which was responsible for damage to the telegraph pole as well as the holes in the brick retaining wall. Fortunately such incidents were few, although in the second World War the network suffered badly from the effects of enemy action.
Author's collection

Children from the South Western Railway orphanage at play around 1904. The L & SWR had opened an orphanage for children at Clapham in 1885 which moved to a site alongside the main line at Woking soon after the turn of the century. Originally restricted to the children of former South Western employees, it has widened its scope in recent years and now includes a rest home for retired railwaymen.

David Postle collection



a generous two weeks paid leave. But such benevolence was not standard and by comparison, as late as 1898, a shed porter only received three days.

Within each volume of the working timetables was reproduced a list of commendations and misdemeanours, the July 1883 issue reporting the following amongst a list of four Rewards and 38 Punishments:

Rewards

A Ticket Collector has been rewarded for detecting a pick-pocket.

A Driver has been rewarded for endeavouring to

save the life of a passenger who was killed by a train.

Punishments

Two Drivers have been fined for not properly oiling their engines.

A Driver and Fireman have been fined for loitering instead of returning to Nine Elms.

A Driver has been fined for taking away sponge cloths from stores without permission.

A Porter has been fined for not leaving the Company's premises after finishing work.

A Shunter has been fined for throwing an engine off the rails.

A Driver has been fined for violent shunting.



At Redbridge just west of Southampton, the South Western established an engineering works and foundry, the site formerly occupied by a wagon works which became redundant upon the move from Nine Elms to Eastleigh. At Redbridge, old permanent way materials were gathered and then melted down to be recast in the foundry. The lady is carrying two scrap chairs ready for the furnace at the works in 1943, a time when women had taken over several tasks at the depot for the duration of the War. *Southern Railway*

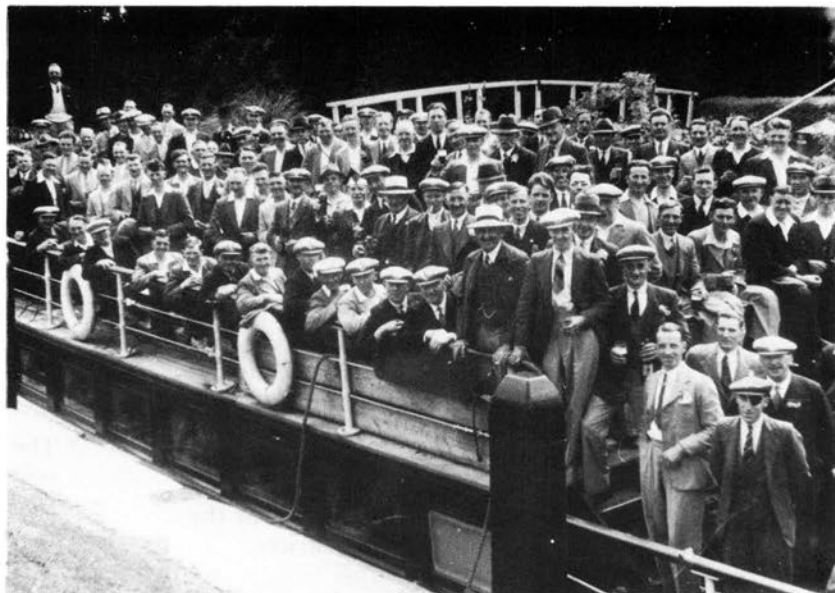
Redbridge was also the site of the L & SWR's sleeper creosoting plant, a process that has continued at the works in both SR and BR days. Here a number of women push a trolley load of prepared timber into the 'pickling' plant after which the door is sealed and the creosoting commences. This was carried out by extracting the air and then introducing the preservative under pressure which penetrates the timber, the sleepers having been scored in advance to provide a 'key'. The system replaced an older and less efficient process where the sleepers were merely dipped in a vat of creosote.

Southern Railway



L & SWR drivers, firemen and other staff from Eastleigh on a day's outing on the River Thames. Bearing in mind the number of staff present, it is interesting to consider exactly how many men were employed at just the one location for at the same time as this trip, the Railway would still have to continue operating.

Mr. & Mrs A. Bennett collection



Staff at Camberley sometime between 1900 and 1914. The most noticeable feature is the seventeen men visible, all of whom are probably railway employees. This was not unusual, as for many years every station possessed its own Station Master, clerks and signalmen, whilst a veritable army of porters would meet each arrival.

Lens of Sutton

In what little spare time they had, staff were encouraged to join the Army Reserve Service, although the popularity of this waned from about 1881 with the first classes of the St. John Ambulance Brigade. The Company magazine, the *South Western Gazette* was first published in 1881 and was a forerunner to the other railway company magazines. Its unbroken run ceased in 1923 with the formation of the Southern Railway, which published its own *Southern Railway Magazine*.

Goods Services

At a time when most of the goods produced, exported or imported into the country were carried by rail, the goods department of the South Western was an important part of the Company's operations. Even so, it did

not compare with the freight traffic of other railway companies although the level of passenger traffic was often heavier. In 1889, for example, the South Western carried some 35 million passengers, the same amount as the Midland Railway who had twice the route mileage.

Almost every wayside station possessed its own goods yard with larger marshalling or sorting depots sited at places such as Feltham, Nine Elms and Eastleigh as well as those locations where the South Western came into contact with the lines of other companies.

In addition, there were goods facilities provided by various private sidings scattered around the system. A number of these had but a brief life, and were often intended to serve just a local need. One was on the main line just south of Winchester. Established in 1920

it served to bring in materials for the building of a local housing estate and ceased to be used after 1923. Another was at Steventon, north of Micheldever and yet another at Goldsworth Cutting, east of Brookwood.

The various country yards and stations were serviced by at least one pick-up-goods train daily. This would slowly amble its way between the more major locations dropping off, shunting and collecting wagons ready for their onward journey. Despite what might appear to be an antiquated means of operation, the service was remarkably reliable, with goods consigned at a station one evening ready for collection at most destinations the following day. The majority of through goods trains ran at night leaving the day time clear for the passenger services.

To oversee the operation, the company employed a Chief Goods Manager who was responsible for the whole network which was divided into districts.

In 1899 there were four:

MAIN LINE DISTRICT — from Waterloo to Southampton and Portsmouth, Guildford via Surbiton, and Aldershot, Alton, Midhurst, Gosport and Netley branches.

METROPOLITAN DISTRICT — from Clapham Junction to Windsor and Reading, with Kensington, Hammersmith, Hounslow, East Putney, Kingston, Shepperton, Hampton Court, Chertsey, Ascot, Ludgate Hill and Leatherhead branches.

CENTRAL DISTRICT — from Northam Junction to Bournemouth and Weymouth, Eastleigh to Salisbury, Worting Junction to Yeovil Junction and Yeovil, including Redbridge, Hurstbourne and Fullerton, Fordebridge, Lymington and Swanage branches.

WESTERN DISTRICT — from Yeovil Junction westwards.

Some of the above are locations to which the South Western possessed running powers over other companies' lines.

In addition to the 'luggage-in-advance' service, there were a number of country agents who undertook to collect and deliver goods both within the London area as well as within the towns and villages. One of the best known was Chaplin & Co. who at their peak provided a carrier service at Barnstaple, Gosport, Portsmouth, Plymouth, Reading, Ryde, Sandown, Southsea, Ventnor, Winchester and Yeovil as well as at a number of locations on the London & North Western Railway system.

The goods department also offered a 'door-to-door' collection and delivery service. The Barnes station horse dray is seen here on a local duty. *Lens of Sutton*



Wagons awaiting attention at Yeovil Junction (Western Section). The fact that this was also a junction with the GWR lines to Castle Cary and Weymouth meant 'foreign' vehicles in the yard were a regular feature. *Lens of Sutton*

Bus Services

Towards the end of its independent life, the L & SWR instigated a number of 'road motor' services. In 1903, a private venture was started in the south London Borough of Croydon. The combination of solid wheels and the poor local road surface caused one commentator to liken this first service, "... to a wagon loosely filled with tin biscuit boxes."

Despite such views and that the venture was a financial disaster, the Railway considered it worthy of development and so purchased both the vehicles from the operator.

They were put to use on a railway operated 'bus service from Exeter to Chagford. That service was soon followed by a variety of vehicles operating between Lyndhurst Road Station and Lyndhurst village (a light railway had also been suggested for this route

around the same time but came to nothing), Lymington to Milford and New Milton, Farnham to Haslemere, Totton to Hythe and Fawley, and Weymouth to Wyke Regis.

Unfortunately a combination of unreliability of vehicles, high operating costs and competition from private individuals meant this was one area that did not fulfill original expectations. The longest lasting of all the routes was that from Exeter, which was in use from 1904-1924. Others were destined to survive only months although the GWR did resurrect the Weymouth service as a joint venture with the L & SWR, in which guise it lasted until 1923. The Fawley service, which had only operated between 1906 and 1908, was later replaced by a railway which was opened in 1925 over basically the same route.



A Clarkson 32 h.p. steam bus outside Nine Elms works, probably when new in 1905. The Railway operated four vehicles of this type and later acquired a number of internal combustion engine buses. Amongst the routes on which they were used was that from Exeter (Queen Street Station) to Chagford, via Tedburn St. Mary, Crockernwell, Whiddon Down and Sandy Park.

Lens of Sutton



Southern Railway express of the 1930s, with King Arthur class 4-6-0 No. 788 'Sir Urre of the Mount' about to leave Bournemouth Central with an up train.

Roger Sherlock



Public Relations sixty years ago when the Southern Railway had an enquiry office at what was probably the Devon county show at Crediton.

Lens of Sutton



After the L & SWR

With effect from 1st January 1923 the separate identity of the London and South Western Railway was lost when it became part of the new Southern Railway group whose boundaries extended from Kent in the East, through Sussex and Surrey to the former L & SWR lines in Devon and Cornwall.

It was naturally a period of some turmoil, although the South Western influence remained paramount with the positions of Chairman, General Manager and Chief Engineer all occupied by those who had held similar posts with the L & SWR. It was also a time to attempt to bury old differences between rival companies although in several locations this could not be

accomplished overnight.

The influence of the former L & SWR was felt in many areas although not in the locomotive field where Urie had retired in favour of R.E.L. Maunsell from the South Eastern Railway at Ashford. Maunsell was to guide the motive power department through a difficult period, years during which electrification schemes were being implemented, and yet it was carried out in a way that would have defeated other less determined men. Under Maunsell, the Southern possessed a fleet of 2-6-0 'Moguls' well suited to the mixed traffic role, whilst for express work he produced the 'Schools' and 'Lord Nelson' classes as well as adapting

A delightful study of SR 225.S., the Meldon Quarry shunter which was allocated to the Engineer's Department.

H. C. Casserley



the Urie 4-6-0 designs to form the 'King Arthurs', all of which gave valued service almost to the end of steam itself.

However, it was with electrification that the new Southern Railway was mainly pre-occupied and the South Western 3rd rail network was slowly expanded to cover a number of routes from all three constituent companies. At first these were primarily the suburban lines which also involved conversion of the limited LB & SCR 25Kv overhead system. Later the main lines to Brighton and Portsmouth were operated by electric traction, the latter from 4th July 1937.

Besides his responsibility for steam stock Maunsell was charged with providing the new trains for the electric services. Accordingly a large number of new units were built together with other vehicles for conventional steam haulage. All this pressure had taken its toll on Maunsell and he became a sick man. He retired in 1937, one of the last of the former senior pre-grouping figures.

Maunsell's replacement was the charismatic Oliver Bulleid who brought with him a new urgency into the locomotive department. Bulleid was above all an innovator and to whom almost nothing that had gone before was sacred. In a brief 13 year tenure he built no less than 180 locomotives as well as a vast number of coaches and electric units. In addition, his desire to design a steam engine to rival the electrics and diesels resulted in the Leader project, but unfortunately the prototype did not fulfill expectations, and the project was abandoned.

The Southern Railway were also responsible for expanding their rail network further and the first of the new lines, that from Totton to Fawley, was opened in 1925. In the same year the final route in the West Country was opened between Halwill Junction and Torrington whilst later on a number of spurs and connections were added principally in the London area and intended to ease suburban congestion.

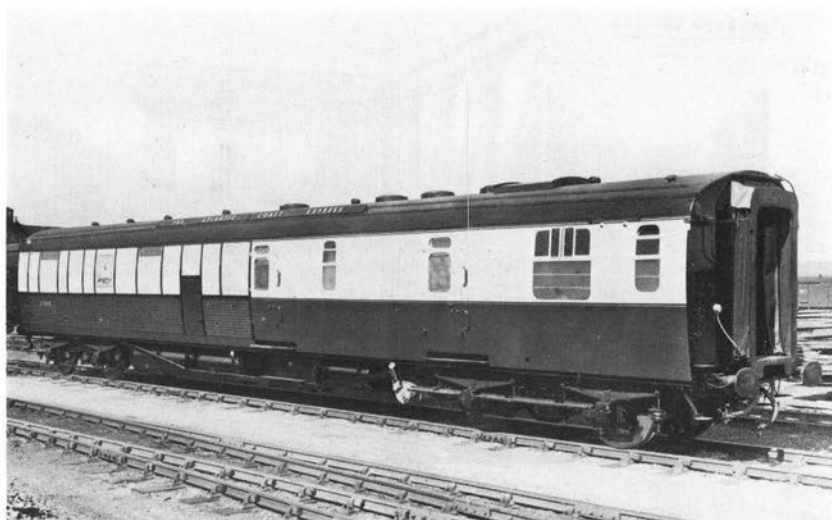
But whilst adding where necessary the Company

Southern Railway development of the early electric units and a Bulleid design 4-Sub unit. B.R.P.S.



Bulleid's 'Leader' engine outside Brighton Works in 1949. This was the locomotive intended to meet the challenge of the diesels and electrics and prove that steam could be retained as a practical means of motive power. Unfortunately, the project was not successful and the design was never put into full production.

Don Broughton collection



Another of Bulleid's attempts to ensure the Southern Railway and its successor BR(S) remained ahead of its rivals was in the use of tavern cars. These were conventional restaurant/buffet coaches but with the sides partly covered in mock brickwork and intended to represent a typical English pub. The coaches were even given inn type names, this one being 'White Horse'. After comments and complaints from both the railway hierarchy and the travelling public, the vehicles were converted to a more conventional design.

B.R.P.S.

was ruthless in areas where economies were felt to be needed and in the years 1923-47 no fewer than 19 lines were closed including the only narrow gauge route operated, that from Lynton to Barnstaple. If it had survived this line would no doubt have a rosy future today.

The Southern Railway also expanded in other areas, in particular the development of the docks at Southampton. There was also a vast increase in cross channel traffic from the Kent ports of Dover and Folkestone

Amongst the line closures of the 1930s was the little line from Lynton to Barnstaple. The last train ran on 30th September 1935 and this railway was the only narrow gauge line operated by the Southern. Had it survived, it would surely have been guaranteed a future as a tourist attraction in what is a prime holiday area. The view is of Barnstaple (Town) station.

Lens of Sutton

and in consequence all these places were re-equipped and re-built.

Train services too had improved with a regular 2 hour service to Bournemouth. There were also a number of all Pullman trains including the Brighton and Bournemouth Belle services. This forward looking attitude was similarly demonstrated in the Southern's increasing use of concrete as a building material. Bridges, lineside furniture and even stations themselves were constructed of this material and which, whilst perhaps appearing garish and dated today, must be remembered as representing the very latest in architectural elegance at that time. Behind the scenes too this progress involved a general destruction of old plans no longer considered relevant in consequence of re-building. Today the railway historian has little to inform him of designs and layouts from the earliest days, for the Southern was a railway which



New works in 1930 at Morden South on the line from Wimbledon to Sutton.
Lens of Sutton



refused to live in its past and instead consistently looked to the future.

The years up to 1939 saw the Southern fighting hard for traffic against the new competition from the road lobby, and it was one of the few companies which appeared to be winning this battle. Unfortunately all this was to change and during the unhappy period of the second World War great demands were placed upon the Railway's limited resources without the essential maintenance being carried out. Along with the other three railway groups the SR were paid only an amount equal to pre-war traffic levels and totally unrelated to actual operating costs. Consequently with a return to peace it was just not possible to restore

services to their earlier eminence overnight.

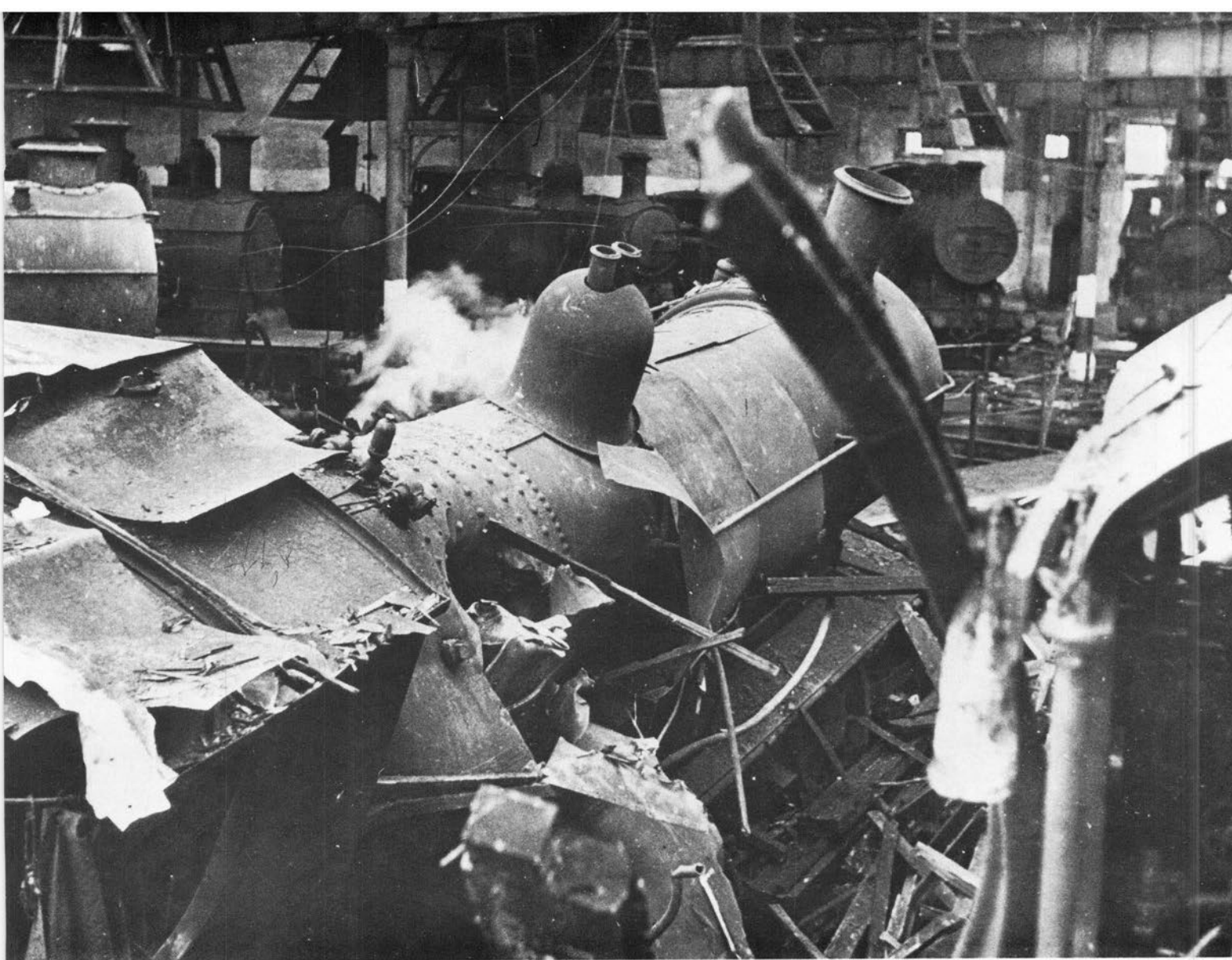
Despite this there were still a few splashes of colour such as when a new all-Pullman train was put on between Waterloo and the West Country and appropriately named the 'Devon Belle', but one-offs such as this were insufficient to counter complaints from the public and the Government decided to nationalise the country's railway network from 1st January 1948. The Southern Railway became the Southern Region of British Railways.

Again there was a period of inactivity whilst the new overall organisation attempted to come to terms with the vastness of the empire it now controlled. To the majority who sought better, cleaner and faster



A number of stations were rebuilt by the Southern Railway to accommodate the increased traffic. This view is of Southampton West (later Central) and shows the down side. The garish use of the concrete design was considered ultra modern at the time and although perhaps still a little hard on the eyes today, Surbiton, which was built in the same style, is now a listed structure! Unfortunately Southampton suffered badly from enemy bombing and the main passenger entrance shown here was almost totally destroyed.

Author's collection



Above. The effect of a bomb on Fratton locomotive shed, just north of Portsmouth. In consequence of events such as this, it became the practice to stable engines at a variety of locations away from obvious targets. Nine Elms shed was also badly affected by bombing, but fortunately Eastleigh was not, although there were a few near misses.
British Railways

Left: Enemy action at Portsmouth Harbour station, 10th January 1941. The Southern suffered badly at this time, in particular on the coast of Hampshire and in the London area. Amongst the damaged stock in the platform is an electric unit.
British Railways



Publicity and warfare together on the Southern in the 1940s. *Author's collection*

trains it appeared little was being done although in effect it was just that there were insufficient monies available for the investment in new equipment.

The Southern managed better than most even if it was not until 1959 that the first stage of the Kent Coast electrification was implemented on the original 3rd rail principle. Had the SR continued as a private concern Bournemouth would have been likely to have seen a similar electric service by 1955 as it was in their long term plans. In practice, however, the war and subsequent nationalisation ensured that this did not finally come about until 1967. Twenty one years later, the 3rd rail finally reached Weymouth, one in the eye to the Great Western, long since ousted from the Dorset port.

Accompanying the spread of electric working was a gradual elimination of steam so that co-inciding with the completion of the Bournemouth scheme, steam was eliminated from the SR. Under the impact of the Beeching programme, a number of lines had closed including the majority of the former South Western network in Devon and Cornwall, colloquially referred to as 'the Withered Arm'. The lines to the west of

Exeter were known as 'The Withered Arm', as they were essentially long branches which produced little revenue. Who would have thought the Somerset & Dorset too would have been closed in 1966? In addition there have been several boundary changes over the years, and now almost everything west of Salisbury comes under the Western Region. The former main line between Salisbury and Exeter was only just saved from closure, but there are some who refuse to let everything associated with the old ways die and a number of locomotives, carriages, wagons, signals and other paraphernalia from the old L & SWR have survived into preservation, ironically most of them in private hands. In some cases this has even involved sections of former railway with parts of the Swanage branch and the Winchester-Alton line now operated as tourist lines, intended to remind all of the days of travelling behind steam.

How this has all come about is a direct consequence of a changing lifestyle. The motor car and motor lorry are now all important with the operating rural railway little more than an unnecessary relic of life gone by. Unfortunately the urban planner sometimes under-

estimates the contribution an operative railway can make to the environment. It only takes the inefficiency of the smoking lorries on our roads to indicate this fact.

In recent times a more aggressive railway management has recognised a need for change and with the formation of the 'Network South East' system which encompasses almost all of the former South Western system, progress is being made at last not only towards safeguarding the traffic that remains but also winning back that previously lost. Indeed as a recent advertising poster announced, "Next Monday we will move more people into Waterloo than were evacuated from Dunkirk . . ." and this is not only on a Monday, but every day of the week.

How this is possible is in no small way due to the pioneering work of the South Western in its network of lines and electrification schemes. Whilst considerable change has occurred in the past 150 years, the directors of the original London and Southampton railway may still be rightly proud.

A return to peace and the engine for the 'Devon Belle' awaiting its train at Wilton, just west of Salisbury. According to the public timetable, this service was non-stop from Waterloo to Exeter, although in practice a brief pause was made to change motive power at Wilton. As there were no water troughs on the Southern Region and one engine did not carry sufficient water for a non stop run, a stop was necessary, although the use of a substitute engine would perhaps appear somewhat extravagant. The locomotive is 'Merchant Navy' Pacific, 35007 'Aberdeen Commonwealth'.

Author's collection





The traditional pick-up goods, a method of operation that had originated almost with the start of the railway and was destined to have the same basic life as the steam engine itself. In Southern days, a former L & SWR '700' class travels slowly south from Petersfield towards Havant in June 1933.

A. Molyneaux collection



Nearly the end of steam, and a rebuilt 'Merchant Navy', No. 3503 'Elder Dempster Line' thunder past a group of permanent way men near Eastleigh Airport on the main line between Waterloo and Southampton.

P. J. Cuppe



Steam in its final years as a rebuilt West Country Pacific, 34017 'Ilfracombe' slowly enters Winchester City station with a London train in May 1965

Rod Hoyle

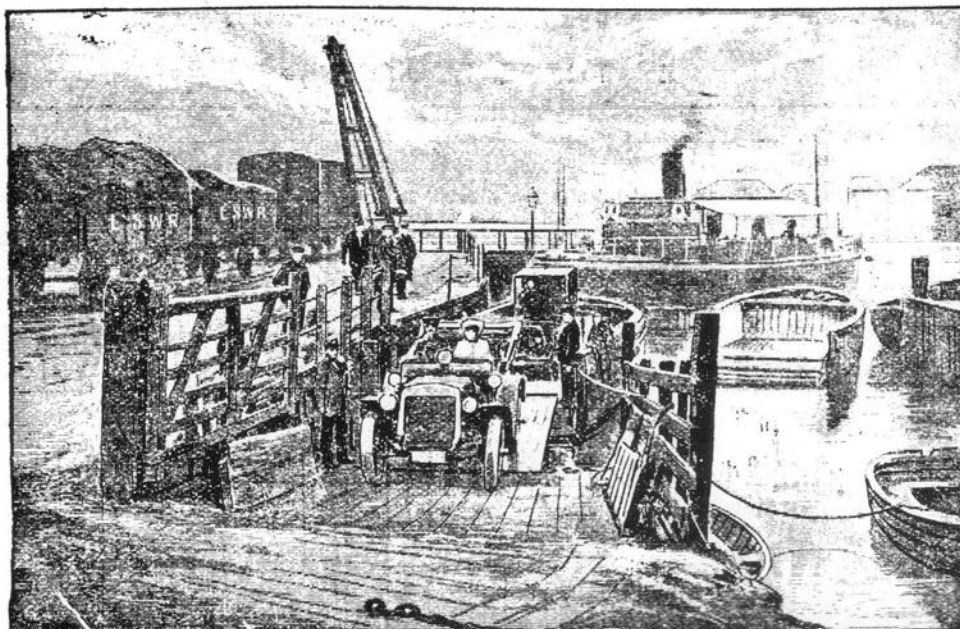


Opening Dates

The following is a list of opening dates of L & SWR lines, including those wholly operated, joint lines and railways taken over by the South Western, but excluding some spurs and flyovers.

1834	Bodmin & Wadebridge. Wenford Bridge & Ruthern Bridge	1866	Alderbury Junction - West Moors. St. Denys - Netley. Chertsey - Virginia Water
1838	London (Nine Elms) & Southampton (first sections, opened throughout 1840)	1867	North Tawton - Okehampton Road
1841	Bishopstoke - Gosport	1868	Seaton branch. Tooting - Wimbledon.
1845	Woking - Guildford	1869	Malden - Kingston. Kensington - Richmond via Hammersmith
1846	Clapham - Richmond	1870	Brookwood - Farnham. Christchurch - Bournemouth (East)
1847	Southampton - Dorchester and to Hamworthy (Poole branch), Havant - Portsmouth (joint with LB & SCR). Bishopstoke - Salisbury	1871	Okehampton Road - Okehampton
1848	Nine Elms - Waterloo. Weybridge - Chertsey. Richmond - Datchet. Fareham - Cosham, and Portsmouth over joint line	1872	Bideford - Torrington. Poole Junction - Poole
1849	Hampton Court branch. Guildford - Ash - Farnham. Datchet - Windsor. Guildford - Godalming. Barnes - Smallberry Green	1874	Barnstaple - Ilfracombe. Okehampton - Lydford. Wimborne - Bournemouth. Poole Quay branch. Sidmouth branch
1850	Smallberry Green - Hounslow loop. Loop line to Feltham	1876	Portsmouth Harbour Extension (joint with LB & SCR). Plymouth - Devonport.
1851	Exeter - Crediton (originally built as Broad Gauge, and worked by the Bristol and Exeter Railway)	1878	Ascot - Sturt Lane Junction
1852	Farnham - Alton	1879	Okehampton - Holsworthy. Frimley - Aldershot North Camp
1854	Basingstoke - Andover. Crediton - Fremington. Brookwood Cemetery branch	1885	Leatherhead - Effingham. Hampton Court Junction - Guildford. Swanage branch. Hurstbourne - Fullerton. Southsea branch
1855	Fremington - Bideford	1886	Halwill - Launceston
1856	Staines - Ascot - Wokingham (access thence to Reading via SE & CR)	1888	Brockenhurst - Christchurch
1857	Andover - Salisbury. Dorchester - Weymouth. (access from Dorchester Junction via GWR)	1889	East Putney - Wimbledon. Netley - Fareham
1858	Lymington branch	1890	Lydford - Devonport. Brookwood - Bisley.
1859	Salisbury - Gillingham. Godalming - Havant. Wimbledon Junction - Epsom. Leatherhead (joint with LB & SCR)	1891	Shawford - Winchester (connection with D.N. & S. railway)
1860	Gillingham - Yeovil - Exeter	1892	Launceston - Tresmeer. Plymstock branch.
1861	Exmouth branch	1893	Tresmeer - Delabole. Hamworthy Junction - Poole
1862	Ringwood - Christchurch. Exeter L & SW - Exeter GWR	1894	Lee-on-the-Solent branch
1863	Stokes Bay Railway. Chard branch. Bishops Waltham branch. Twickenham - Kingston via Teddington	1895	Delabole - Wadebridge
1864	Petersfield - Midhurst. Shepperton branch	1897	Budleigh Salterton branch
1865	Coleford Junction - North Tawton. Andover - Redbridge. Alton - Winchester. Weymouth - Portland	1898	Holsworthy - Bude. Lynton & Barnstaple. Waterloo & City.
		1899	Wadebridge - Padstow
		1901	Basingstoke - Alton
		1902	Amesbury branch
		1903	Budleigh Salterton - Exmouth. Lyme Regis branch. Alton - Fareham
		1904	Fareham Tunnel avoiding lines
		1905	Bentley - Bordon
		1906	Amesbury - Bulford
		1915	Dinton - Fovant
		1917	Bisley - Deepcut - Blackdown
		1918	Bovington Camp branch

MOTORING IN THE ISLE OF WIGHT.



Loading Motor Cars at Lymington.

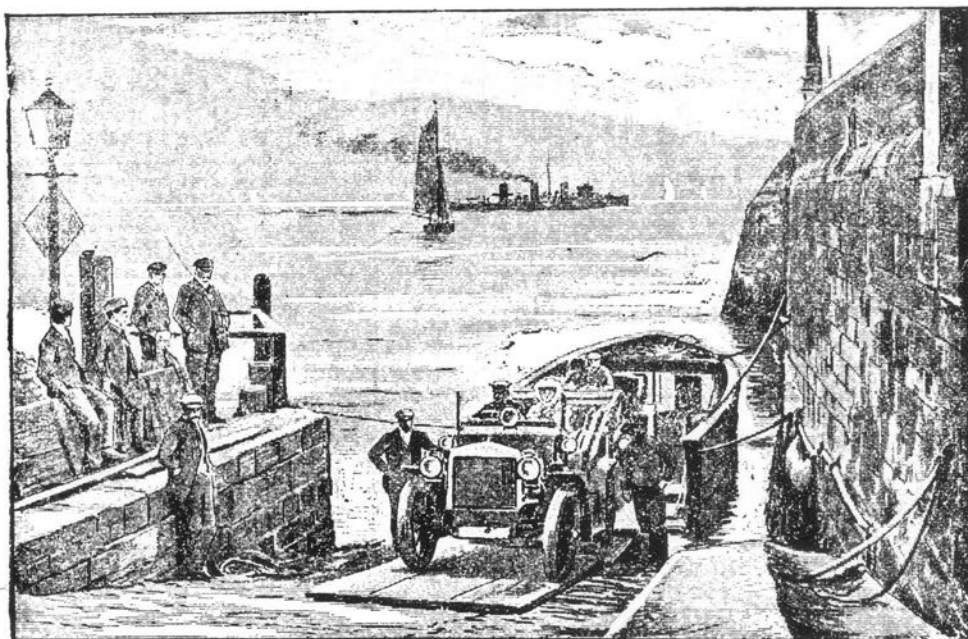
NO Motor Tour through England can be considered complete which does not include a run round the Isle of Wight (sixty miles). The most convenient point for crossing is at Lymington, on the South side of the charming New Forest, where the London and South Western Railway Company has provided efficient accommodation for such traffic, including slipways whereby cars can be shipped by their own power, on to specially constructed boats, thus entirely obviating the necessity of lifting, and removing a difficulty which hitherto has deterred many from visiting the lovely "Garden Isle."

The boats—towed by fast, powerful tugs—quickly negotiate the passage, which is the shortest and most sheltered, to the island. On Week-days (weather and circumstances permitting) the boats leave Lymington Town Station Wharf at 9*30, 11.30 a.m., 2.30 and 4.45 p.m. for Yarmouth, and leave Yarmouth at 8*0 a.m., 12.30, 3.15 and 5.30 p.m. for Lymington. Cars should be upon the Wharf half-an-hour before these times.

* Prior notice should be given to the Station Master at Lymington in regard to conveyance by these boats.

Special passages can be arranged on Sundays upon arrangement being made with the Station Master, Lymington (Telephone No. 7), not later than the previous day, the extra charge being £1 per Car above the ordinary rates, which are 9s. for cars not exceeding half-a-ton, and 14s. for cars above 10 cwts., including wharfage and portorage at Lymington and Yarmouth.

BANK HOLIDAYS ARE TREATED AS ORDINARY WEEK-DAYS ; GOOD FRIDAY AND CHRISTMAS DAY AS SUNDAYS.



Unloading Motor Cars at Yarmouth, I. of W.

Wessex Electrics



Network SouthEast

Class 442 electric multiple unit